L Number	Hits	Search Text	DB	Time stamp
-	36	345/859.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/19 11:37
-	29	(@rlad<20000210 @ad<20000210) and 345/859.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/18 12:22
-	14	6,088,707	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/17 16:14
-	1	6,088,707.pn.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/17 16:14
-	1	"5870769".PN.	USPAT; US-PGPUB	2004/02/17 16:25
-	0	bates.in and international-business.as.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/18 11:40
-	0	bates.in. and international-business.as.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/18 11:59
-	192	bates.in. and international-business$.as.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/18 11:40
-	2	6,088,707.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/18 11:42
-	1	6,088,707.pn.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/18 13:45
-	1	bates.in. and "tracked list".drwd.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/18 11:59
-	1	"tracked list".drwd.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/18 11:59
-	18882976	(@rlad<20000210 @ad<20000210)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/18 13:36
-	26	(hyperlink and history).ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/18 13:37
-	20	(hyperlink and history).ti,ab.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/18 13:37

-	18882976	@rlad<20000210 @ad<20000210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/18 13:37
-	16	(hyperlink and history).ti,ab. and (@rlad<20000210 @ad<20000210)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/18 13:41
-	13	"6088707"	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/18 13:45
-	13	"6088707"	USPAT; US-PGPUB	2004/02/18 15:52
-	1897	(715/513 715/501.1 715/523).ccls.	USPAT; US-PGPUB	2004/02/18 15:52
-	0	neilson.ini and chache	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/19 11:37
-	1	neilson.in. and cache	USPAT; US-PGPUB	2004/02/19 11:37
-	8	nielson.in. and cache	USPAT; US-PGPUB	2004/02/19 11:39
-	6	nielson.in. and cache and @pd<20000210	USPAT; US-PGPUB	2004/02/19 11:39
-	209	netscape same cache	USPAT; US-PGPUB	2004/02/19 11:40

Viewing the Internet

Upon starting Navigator, Communicator's browser component, the first page you see is your current home page.

To view Web pages

- Click highlighted words (colored or underlined) in a page to bring another page of related information to your screen.
- Click **Back** and **Forward** toolbar buttons to go back (or forward) to a page you have previously seen.

To display the content you seek, you'll need connections to those pages. Well-crafted pages provide built-in connections to other pages. These connections are presented as highlighted word, picture, or menu links. Each link contains Internet location information that serves as an address of the web site.

When you click with the mouse cursor over a highlighted word, picture, or menu link, you bring another page of information to your screen. The entire network of pages can be potentially interlinked, one pointing to another.

To move back and forth between two pages

1. Click any highlighted words to view a new page.
2. Click the toolbar's **Back** button (left arrow) or, from the **Go** menu, select **Back**.
3. Repeat step 1 and notice the changes in the location field (which shows the page's network location), the Netscape company logo (which animates during a page transfer), the status message area (which shows a link's location or a transfer's progress), and the progress bar (which illustrates a transfer's progress).

To find and return to pages

You can go directly to pages that interest you by choosing menu items.

- **Search** and **Guide** items available through toolbar buttons display pages that help you use Communicator and Internet features.
- Bookmark menu items in the location toolbar (on the menu bar in the Mac OS) display pages you have marked for easy access.
- History items in the **Go** menu display pages you have viewed before.

To open a new Navigator window

From the **File** menu, choose the pull-right item **New**, then **Navigator Window**.

The new window displays another copy of your home page on the screen in a fully functional and independent Navigator window.

To create simultaneous network connections

Each time you open the Navigator window, you begin a new session of Internet interaction. Even if one connection has not completed its page display, you can begin another connection in a second Navigator window.

1. Click any link in the frontmost window.
2. Click any another Navigator window to bring the window to the front.
3. Click any link in the second window to begin a second connection.

To display content in a Navigator frame

Using frames, Communicator can display pages within a page (like the picture-in-picture feature of television sets).

Frames segment a page into rectangular areas, each area capable of displaying a page.

1. Click a link in a page that contains frames. The author of a page determines which pages have frames and the frame's original positioning.
2. Check to see if the link you clicked changes one or more frames within a page, or displays an entirely new page.
3. Drag the edge of a frame to resize the frame within a page. This gives you control over the layout of the presented information.

About the Internet

The Internet is a collection of information stored in computers physically located throughout the world. Much of the information on the Internet is organized onto electronic pages. You'll bring one page to your computer screen, discover its contents, and have the option of bringing more pages of information.

The World Wide Web (or Web) is one facet of the Internet consisting of client and server computers handling multimedia pages. Client computers use software such as Netscape Communicator to view pages. Server computers use server software to maintain pages for clients to access.

Foremost, Communicator presents pages of the Internet with elegance and efficiency. The software allows you to immerse yourself in content unencumbered by the complexity of distributed networks.

Using the Component Bar

The component bar lets you easily open windows for each of the primary Communicator components.

To view the component bar

You can display the component bar in two ways:

- As a floating palette (a small window you can position anywhere on the screen).
- As a stationary palette docked to the bottom-right of each component's window.

To switch from the floating palette to the docked palette

Click the close box in the floating palette.

To switch from the docked palette to the floating palette

Drag the lines on the leftmost part of the docked palette to another position on the screen.

To open windows using the palette

Click one of the four component bar icons. The four commands of the component bar are:

- Open a Navigator window for web browsing.
- Open the Mailbox window for mail messaging.
- Open the Discussion Groups window for discussion group messaging.
- Open a Composer window for page composition.

You can also perform component bar commands from the **Communicator** menu.

See Also
Displaying Communicator Windows

Searching and Finding

Navigator software offers two distinct tools to help you locate information: Internet "search" tools and page "find" tools.

- A search tool helps you locate information such as web pages and discussion group messages that resides on the Internet network.
- A find tool locates particular words or phrases within the page that you're currently viewing.

To search for information over the Internet

1. Click the **Search** button on the toolbar. This displays a page offering access to Internet search engines and other search services.
2. Follow the instructions on the search engine site. Typically, you'll type in search text, click a button, then wait for the engine to locate occurrences of the text among a database of web pages.
3. Examine the search results. These are usually presented as a list of links to pages containing the text you requested.
4. For additional Internet exploration, click the **Guide** button on the toolbar to display a pop-up menu listing Internet directory items. These directories can guide you to various Internet sites and services.

To find information in the current page

1. Open the **Edit** menu and choose **Find in Page**.
2. In the resulting dialog, type the text you want to find, then click **Find Next**. Located text is highlighted and, if necessary, the page scrolls to the text's position.
3. Click the **Edit** menu's **Find Again** item to search for more occurrences.

The **Edit** menus of the Bookmarks window and Message window have similar commands, **Find in Bookmarks** and **Find in Message**, respectively.

To learn more about Netscape and its products

1. Click the Netscape company logo in the top-right corner of the window to display the Netscape home page.
2. Click links on the home page to display the company's content pages. You'll find links for company news columns, a merchandise store, customer service, technical support, and up-to-date information on Netscape software.

Using a URL

To identify page locations

To understand how a single page is kept distinct in a world of electronic pages, you should recognize its URL, short for Uniform Resource Locator. Every page has a unique URL.

Not only does each page have a unique URL, but also each image and frame on a page. You can access a page, an image, or an individual frame by supplying its URL.

A URL is text used for identifying and addressing an item in a computer network. In short, a URL provides location information and Navigator displays a URL in the location field. Most often you don't need to know a page's URL because the location information is included as part of a highlighted link; Navigator already knows the URL when you click highlighted text, click a toolbar button, or select a menu item. But sometimes you won't have a link and instead have only the text of the URL (perhaps from a friend or a newspaper article).

To enter a URL

- Type the URL directly into the location text field.
- Alternatively, you can choose **Open Page** from the **Fil** menu and type the URL in the resulting dialog box. (On the Mac OS, select the pull-right menu item **Open**, then choose **L cati n in Navigat r** or **L cati n in Composer** to enter a URL.)

By entering a page's URL, Navigator can bring you the specified page just as if you had clicked a link.

Here are some sample URLs:

http://home.netscape.com/index.html

ftp://ftp.netscape.com/pub/

news:news.announce.newusers

To interpret the location field label

- The label of the location field reads **Netsite** after you display a page that comes from a Netscape server.
- The label of the location field reads **Location** after you display a page that comes from a non-Netscape server.
- The label changes to **Go to** if you enter text in the location field. Pressing the Enter (Return) key displays the page specified in the **Go to** field and changes the label back to **Location**.

To enter partial URLs

If you omit certain parts of a URL in the location field, Navigator automatically completes the entry. You can omit the following:

- The prefix **http://**. Navigator automatically adds the necessary prefix to complete the URL search.
- The partial pathname **http://www.**. Navigator automatically adds the necessary pathname to complete the URL search.
- The suffix **.com**; Navigator automatically adds this suffix if none is specified.

On Windows, when you begin to type a URL in the location field, Navigator attempts to automatically complete the URL. As you type, Navigator checks for previously visited URLs that match the letters you have typed and, if a match is found, fills in the remainder of the letters. If more than one match occurs, you can press the down-arrow key to fill in the next matching URL.

Also on Windows, the location field offers a pop-up menu to the right of the field. The menu contains up to 14 URLs of pages whose locations you've most recently typed into the field and viewed. Choosing a URL item from this menu brings the page to your screen again. The URLs are retained in the menu for each of your Navigator sessions.

To identify URL components

Communicator uses the URL text to find a particular item, such as a page, among all the computers connected to the Internet. Within the URL text are components that specify the protocol, server, and pathname of an item.

Notice in the URL **http://home.netscape.com/index.html** that the protocol is followed by a colon (**http:**), the server is preceded by two slashes (**//home.netscape.com**), and each segment of the pathname (only one here) is preceded by a single slash (**/index.html**).

- The first component, the protocol, identifies a manner for interpreting computer information. Many Internet pages use HTTP (short for HyperText Transfer Protocol). Other common protocols you might come across include **file** (also known as **ftp**, which is short for File Transfer Protocol), **news** (the protocol used by Usenet discussion groups), and **g pher** (an alternative transfer protocol).
- The second component, the server, identifies the computer system that stores the information you seek (such as **home.netscape.com**). Each server on the Internet has a unique name that identifies the location of the

server.
- The last component, the pathname, identifies the location of an item on the server. For example, a pathname usually specifies the name of the file identifying the page (such as **/welc me.html**), possibly preceded by one or more directory/folder names that contain the file (such as **/home/welc m .html**).

Some pathnames use special characters. If you are typing a URL into the location field, you'll need to enter the characters that exactly match the URL. For example, some pathnames contain the tilde character (~), which designates a particular home directory on a server.

About HTML tags

Web pages are created by authors using a language called HTML (HyperText Markup Language). Composer, Communicator's editing component, automatically generates HTML.

HTML uses short tags (source text enclosed in angle brackets) to designate a page's links and graphical elements. When you transmit a page, Communicator interprets the HTML tags and presents them as links and other graphical elements.

Tags often contain URL information. When you click a tag containing a URL, you're instructing the Navigator application to display page information that's located on a server, irrespective of the server's geographic location. The URL part of the HTML tag is hidden in the page's source text; the content area only displays the highlighted link.

Opening a Page

To view a page by using the Open Page command

1. Choose **Open Page** from the **File** menu.
2. In the resulting dialog box, type a URL (or select a file using the **Choose File** button) to display a page in the content area.
3. Select a radio button to specify whether you want the page opened in a Navigator window or Composer window.
4. After you have specified a page location, click **Open** to display the page.

Using Links to Pages

A link is a connection from one page to another. You find a link by looking for one or more words highlighted with color, underlining, or both in the content area of a page. Images and icons with colored borders also serve as links. A link within a page that contains frames can be a connection that displays one or more new pages within frames, or an entirely new top-level page replacing all frames.

To use a link

1. Point the mouse cursor over a link. The URL location of the link appears in the status message area at the bottom-left of the window.
2. Click once on the highlighted text, image, or icon. This transfers page content from a server location to your location.
3. After you click a link, the Netscape company logo animates to show you that the transfer of the page to your computer is in progress.
4. Examine the status message area and progress bar at the bottom of the window to receive feedback about the progress of a transfer.

To identify followed and unfollowed Links

- An unfollowed link is a connection to a page that you have not yet viewed. By default, unfollowed links are blue.
- A followed link is a connection to a page that you have viewed. By default, followed links are purple.

You can change the colors used to denote unfollowed and followed links; from the **Edit** menu, choose **Preferences**, then select the **Col rs** panel. If you have a black-and-white monitor, unfollowed and followed links are highlighted only with underlining and not differentiated.

To stop a page transfer in progress

- Click the **Stop** button.
- Alternately, you can stop a link's action by choosing **Stop Loading** from the **Go** menu.

You can stop a transfer whenever the loading process takes longer than you like. This might happen if the content of the page is large or if the server computer is sluggish. Sometimes the page specified by a link just isn't available. You'll usually get a message if a connection was not made or a page not found.

Links to Content inside Pages

When you bring a page to your screen, you'll see the whole page or, if the content is extensive, only a portion. (Scroll bars let you see the rest.) Often the portion you see is the beginning of the page, but sometimes a link brings you content from the page's middle or end. A link can display a new page or display a different portion of the same page (in effect, automatically scrolling for you). For example, the beginning of a page might include a table of contents that links each chapter title to its respective content further down the page.

"Mailto" Links and Internet Addresses

Yet another kind of link doesn't display a page at all. A "mailto" link whose URL begins with **mailto:** produces the Message Composition window for sending mail (with the recipient's address automatically filled in).

Whereas a URL identifies a server's page location on the Internet, an Internet address identifies a user's mailbox location. Here are the components of the Internet address aname@aserver.com:

- aname identifies a user.
- The @ symbol (pronounced "at") separates the user name from the location of the server computer.
- aserver.com identifies the location of the server computer.

Addresses use lowercase letters without any spaces. The name of a location contains at least a string and, typically, a three-letter suffix, set apart by a dot (the period is pronounced "dot"). The name of a location might require several subparts to identify the server (a host name and zero or more subdomains), each separated by dots. For example, the address **aname@aserver.bserver.com** uses a subdomain.

The three-letter suffix in the location name helps identify the kind of organization operating the server. (Some locations use a two-letter geographical suffix.) Here are the common suffixes and organizational affiliation:

- **.com** (commercial)
- **.edu** (educational)
- **.gov** (government)
- **.mil** (military)
- **.net** (networking)
- **.org** (noncommercial)

Mail addresses from outside the United States often use a two-letter suffix designating a country. Here are some examples:

- **.jp** (Japan)
- **.uk** (United Kingdom)
- **.nl** (the Netherlands)
- **.ca** (Canada)

Using Toolbar or Menu Links

In addition to links in the content area, you can also access links using Communicator toolbar buttons and menu items. Menu items offer each of the links available through toolbar buttons, plus many more.

To display the home page

Click the **Home** button. The URL of your home page is designated in your preferences.

To display previously viewed pages

- Click the **Back** button to display the previous page in the history list.
- Click the **Forward** button to display the next page in the history list. This button is available only after you've used **Back** or a history menu item.
- Choose history items from the **Go** menu. Communicator automatically puts the title of a page you have viewed at the top of the history list.
- From the **Communicator** menu, choose **History** to see the history lineage.

To display pages that you have preselected as bookmarks

- On Windows and Unix, choose bookmark items from the **Bookmarks** pop-up menu.
- On the Mac OS, choose bookmark items from the **Bookmarks** menu available on the menu bar.

To display links to Internet and Communicator information pages

- Click the **Guide** button (on the Mac OS, hold down the button) to display a pop-up menu containing Internet directory links.
- Choose items from the **Help** menu to display pages with information about Communicator.

To display pop-up menu links

- On Windows and Unix, press the right-mouse button to produce the pop-up menu.
- On the Mac OS, press and hold down the mouse button.

Pop-up menus offer utility features and shortcuts for certain links. When you hold down the mouse button over various elements of a page, pop-up menu items let you go to pages, view individual images, save files onto your disk, copy locations to the clipboard, and perform other tasks depending on where the cursor is pointing.

See Also
Revisiting a Page Using Bookmarks
Using Pop-up Menu Shortcuts

Viewing the Navigator Window

This section describes what you see in the main Navigator window. Most of the navigational tools and text fields are visible, though some **View** menu items let you hide features in order to give more screen space to a page's content.

- **Windows and frames**

  You can open multiple Navigator windows to view multiple pages of information. The window title bar shows the title of the currently loaded page. You'll also find that some pages are designed to be a patchwork of pages. These patchwork pages contain rectangular frames; each frame presents its own page information (similar to the picture-in-picture feature offered in some television sets).

- **Colors and underlining**

  Colors or underlining highlight words on a page that link to new pages. Clicking the highlighted text initiates the page transfer. On black-and-white monitors, underlining highlights links. When you select text in a field, the selection is highlighted (by default, in a different color than the colors used for links).
- **Company logo**

  The Netscape logo is a status indicator that animates when a page transfer is in progress. Click the logo to display the Netscape home page.
- **Progress bar**

  The progress bar, located at the bottom of the window, animates to show the progress of the current operation. The bar shows the percentage done of layout as a page loads and the percentage of kilobytes loaded as an external image loads. When the amount of time necessary to load a page cannot be accurately estimated, a segment of the progress bar "bounces" between its boundaries.
- **Status message area**

  The status message area, located at the bottom-left of the window, contains text describing a page's location or the progress of a connection to a page.
  - When you position the cursor over highlighted words (or an image) serving as a link to a page, the status message area shows the URL that will be used to bring the page to the screen.
  - During connections, the status message area reports progress in contacting the URL source, loading pages, and loading inline information.
  - When you position the cursor over an image with active areas (image map links), the status messages shows the description for the active area.
  - When the **Advanced** panel's **Automatically load images** preference item is unselected and you position the cursor over an image, the status message shows the alternate text for the image and, if the image is a link, the image's URL.
- **Component bar**

  Click an icon in the component bar to easily switch among the components of Communicator. The component bar contains icons to open windows for Navigator, Messenger Mailbox, Collabra Discussion Groups, and Page Composer. You can position the component bar as a floating palette or as a stationary palette docked to the bottom-right of each component's window by using the **Show/Dock Component Bar** item from the **Communicator** menu.
- **Mailbox icon in component bar**

  Click the Mailbox icon (the second icon from the left in the component bar) to display the mail Inbox folder and retrieve new messages. The Mailbox icon includes a question mark (?) if Communicator cannot automatically check the mail server for new messages (for example, if you have not yet supplied your password to access messages). The Mailbox icon includes a down-arrow if the mail server has new messages for you.
- **Page Proxy icon** (not on the Mac OS)

  Drag the proxy icon (the small icon to the left of the location field) to save a bookmark in the Bookmarks window, to create a personal toolbar button or Internet shortcut, or to open the page in another Navigator window. The icon represents the URL of the currently displayed page.
- **Window title bar**

  An author of a page specifies the title as part of the page's HTML source text.
- **Page display**

  The content area displays a page. You can select and copy a page's text. The content area of some pages is segmented into rectangular frames, each frame containing its own page. A page's background can be set by you or determined by the transmitted page. The location field lets you enter the location (URL) of a page you wish to bring to screen. You cannot change the status message area or window title bar.
- **Security indicators**

  The security indicator at the bottom-left of the Navigator window shows whether a page is encrypted (closed padlock icon) or not encrypted (open padlock icon). Clicking a padlock icon displays the **Security Inf** window for interacting with security features (the same as clicking the **Security** toolbar button).
- **Page inf rmati n**

From the **View** menu, choose **Page Inf** to see composition and detailed security information about the current page.

- **T olbar buttons**

Toolbar buttons activate the Communicator tasks you'll most commonly carry out, such as revisiting pages, printing pages, navigating to search engine sites and Netscape directories, reloading pages, and stopping page transfers in progress. You can choose to have the buttons displayed as pictures, text, or both: from the **Edit** menu, choose **Preferences**, and then choose **Appearance**, and set the appropriate panel item. The mail and discussion group windows offer their own sets of toolbar buttons.

Viewing Page Displays

The content area contains the current page displayed by the most recently requested link. Vertical and horizontal scroll bars may be present if the page is larger than the screen area.

To copy text within the content area

- Copy text to the clipboard by selecting the text, then choosing **Copy** from the **Edit** menu.
- Alternatively, you can select text by clicking once at one end of a selection, then holding down the Shift key and clicking a second time at the other end of the selection. (Unlike a word processor, Navigator doesn't display a blinking insertion bar.)

To select and resize frames

The content area of some pages is segmented into rectangular frames, each frame containing its own page.

- Select a frame by clicking inside it. Some commands, such as keyboard shortcuts, affect only the selected frame. Likewise, some menu items, such as printing and page mailing, apply to a frame alone.
- Resize frames by positioning the cursor in the border between frames (the cursor changes shape) and dragging the frames to a new size.

Clicking a link within a frame can affect the page within the frame, pages within other frames, or the top-level page. Generally, toolbar and menu items affect the top-level page. Navigation commands affect each frame: you choose **Back** to revisit the previous frame and choose **Forward** to revisit the frame ahead.

Pages with Frames

The author of a page supplies the content you initially see. Sometimes the content is presented as a single unit taking up the entire content area of the window. Other times the content is displayed in multiple rectangular frames that, together, form a patchwork of individual pages that fills the content area. Frames and the actions of links upon frames are created by page authors using HTML.

Each frame can contain scroll bars to let you view more information. Communicator allows you to resize any frame by positioning the mouse cursor in the borders between frames (the cursor changes shape), then dragging the frame to a new size.

A frame within a page is, in essence, a smaller page within a large patchwork page. Each frame has characteristics of a page. Together, the frames form a top-level page (also called a frameset). For example, clicking a link within a frame can display new information within the frame or in a different frame. Likewise, a link can display an entirely new top-level page replacing all the frames.

- When your link updates frames on a page, clicking the **Back** button returns the frame to its previous state.
- If you are viewing the original top-level frameset, clicking the **Back** button returns the previous whole page.
- When you view a page with frames, certain menu items change to indicate that actions affect only a selected frame's page and not the set of pages in the top-level page. The **Send Page**, **Edit Page**, and **Print** menu

items change to **Send Frame**, **Edit Frame**, and **Print Frame**, respectively.
- When you select a frame by clicking within it, the **Save Frame As** menu item becomes active and some keyboard shortcuts affect only the contents of the frame.

To set a page's background

You can set the background to white, gray, or a custom color of your choosing. You can also determine if your choice of background should always be used or if the background transmitted with a page should override your choice.

1. From the **Edit** menu, choose **Preferences**.
2. Click the **Colors** category.
3. Click the **Background** color box to select a color for background display. White is the default color for a background.
4. Select the **Use Windows colors** checkbox (**Use Default Colors** button on the Mac OS and Unix) to set the text and background display to their original settings.
5. Select the **Always use my colors, overriding document** checkbox to make your color and background settings always override page-specified settings. By default, the box is unselected so that the background and colors set by a page's author are displayed.

To report an error message

Error messages often originate from the server providing the page you wish to see. Communicator tries to evaluate any problem you encounter and present information to help you solve or circumvent it.

1. Note the exact wording of the error message.
2. Choose **Product Information and Support** from the **Help** menu.
3. Locate the feedback form and submit a message.

The most common error messages result from trying to view a page that isn't available. Often, this occurs because the server issuing the page is temporarily shut down or too busy with other connections to handle your request. Occasionally, the page is no longer available at the specified URL.

Automated Pages

Some pages and frames can automatically update themselves using Netcaster or technologies called "server-push" and "client-pull." These allow pages to have multiple interactions with server computers. You can always terminate these automatic actions by going to another page or otherwise exiting the page.

Viewing Images

To turn off automatic image loading

1. From the **Edit** menu, choose **Preferences**.
2. Select the **Advanced** category.
3. Deselect the **Automatically load images** item. When this checkbox is unselected, the images in pages are replaced by small icons.

These small replacement icons are sometimes accompanied by alternative text, also called ALT text. ALT text is shown only as a substitution when an image is not loaded. On some platforms, ALT text is also shown temporarily within a rectangular border as an image is loading. You can view these images at a later time.

To manually load all images that are represented by icons

- Click the **Images** button in the toolbar (only visible when the preference is unselected).

- Alternatively, choose **Sh w Images** from the **View** menu.
- To manually load an individual image, click the image's icon.

The advantage of deselecting **Aut matically l ad images** is that pages are displayed on screen faster. The disadvantage is that you can't view the images until you specify that you want the images loaded.

The **Automatically load images** preference item affects subsequent links and not the current contents of a page. However, if you choose the **View** menu's **Reload** item or click the **Reload** button on the toolbar, the preference item acts upon the reloaded page.

To open an external image in a window

1. Click highlighted text, an image icon, or an inline image to bring an external image into a separate window on the screen. Communicator or a helper application opens and presents the image in a separate window.
2. To continue working with Communicator, click the Communicator window again.

Pages that present large or detailed images often have inline thumbnail images (also called snapshot images) inserted into pages that serve as links to external images. These thumbnails provide an approximate view of the actual image, yet are much smaller and faster to transport than the full image. You can expand the thumbnail into the full image by clicking once on the thumbnail.

Image Performance

Ideally, pages on the screen should present images (or other multimedia effects) as simply and efficiently as text. However, images, sounds, and movies are relatively larger in byte size than text and can take considerable time to transmit from remote computers (servers) to your computer. The length of time needed to display a page with images depends on several factors, most prominently the speed of the modem or direct link connecting you with a remote server. To compensate for the potential lethargy of transmitting images, Communicator offers features that let you manipulate how images are handled.

Internal Images

Communicator loads images into pages automatically. If the author of a page has designed the page with inline (embedded) images, the images are displayed when you bring the page to your screen.

Like highlighted text, an inline image can be linked to another page, another position on the same page, or any type of external file such as an external image. As with all links, positioning the mouse cursor over a link puts the URL location of the prospective link in the status message area.

External images

External images (unlike inline images) are displayed in their own windows. You can view an external image by clicking a link to the image. Communicator can open external images stored in GIF (Graphics Interchange Format), JPEG (Joint Photographic Experts Group), and XBM (X Bit Map) file formats. Other file formats require that you have a suitable helper application available on your hard disk (and referenced in the **Applications** preference panel).

Links to external images work like links to pages. An external image file has a unique URL just like an ordinary page. External images are not automatically loaded in their full representation even if the **Advanced** panel's **Automatically load images** item is selected.

Selecting a Home Page

You can designate your own home page (the page Navigator first brings to the screen each time you open a new window) by supplying a URL as a preference panel item. The default home page, the page that Navigator is initially set to display, has this URL: **http://h me.netscape.com/index.html**. (If you omit the pathname **index.html**, the file still loads by default.)

To change your home page

You can change your home page (or change back to the default) through the **Navigat r** panel.

1. Open the **Edit** menu and choose **Preferences**.
2. Select the **Navigator** category.
3. Click the radio button **Home page**.
4. In the **Location** field, type the URL of the new home page you want. Alternatively, you can select the radio button **Blank page** if you want the home page to be empty of content.

Each time you ask Navigator to open a new window, the designated home page is displayed on screen. The URL can designate a page from a remote computer or one on your hard disk.

To find the URL of a page on your hard disk

From the **File** menu, choose **Open Page**. Then select the page (file) on your hard disk. (For example, you can choose your bookmark file.) After the page opens, you'll see its URL in the location field. You can select and copy the URL, then paste it into the **Location** field in the **Navigator** preferences panel.

At first, you probably won't have any pages stored on your hard disk. But later, you might want quick and sure access to certain pages, such as one with valuable links or one you've created for yourself.

About Plug-ins, Dynamic HTML, JavaScript, and Java

Plug-ins, Dynamic HTML, JavaScript, and Java are advanced technologies that software developers and page authors use to enhance the delivery of Internet information. From the viewpoint of typical users, these technologies are transparent, built into the system of Internet servers, applications, and content. You can take advantage of the technologies with no effort on your part.

Occasionally, you may want to add new capabilities not currently built into the Communicator environment. Plug-ins are software programs offered by various manufacturers that you can add to the Communicator plug-in folder to supplement Communicator capabilities.

Some popular plug-ins are automatically installed with your Communicator software; others are available from the manufacturer's Internet site. To find out which plug-ins are installed, choose the **Help** menu's **About Plug-ins** item. You'll also find information and links on this page for numerous plug-ins.

Page authors use Dynamic HTML, JavaScript, and Java technologies to give pages dynamic capabilities that are seamlessly integrated into the operation of Communicator software. Dynamic HTML and JavaScript allow a page to respond to actions, such as clicking a button or submitting a form, more quickly and efficiently than if the actions were communicated remotely to server computers. Internet pages offering Java applets can perform animation, interactivity, and other actions beyond those possible with HTML.

Dynamic HTML is a set of technologies that provides the user with pages that are richer, faster, and more interactive. The technologies also give page authors more precise control over the styles, positions, and actions of the HTML objects that make up a page.

JavaScript works largely as an extension to the Internet's standard HTML language. It is a relatively easy-to-learn, stand-alone programming language built into Communicator software.

Java is a full-featured programming language whose programs (called applets) can travel over the Internet. Whereas plug-ins are tailored for a particular computer system, Java programs operate across the network, regardless of platform. Because Java capabilities are built into Communicator, Java applets require no installation.

Software developers can learn about plug-ins, Dynamic HTML, JavaScript, and Java through web sites and retail textbooks. Each technology offers connectivity capabilities so that plug-ins, Dynamic HTML, JavaScript programs,

and Java applets can communicate and interact with one another.

You should be aware that advanced technologies involve security considerations. You may want to download plug-ins only from trusted sites. Additionally, you can disable language technologies in the **Advanced** preferences panel.

Viewing the Toolbars

(On the Mac OS, the **Bookmarks** menu is available only from the menu bar, and the personal toolbar is not available.)

The navigation, location, and personal toolbars provide simplified access to links, commands, and page location information. The toolbars are displayed at the top of each Navigator window, just below the menu bar. You can reposition the toolbars or hide them to increase the amount of screen area available for page content.

- The navigation toolbar contains a row of buttons that substitute for widely used menu items.
- The location toolbar contains URL information that's useful for tracking a page's whereabouts or requesting a new page. This toolbar also offers the **Bookmarks** menu.
- The personal toolbar contains a row of handy buttons that you can customize for yourself.

To reorder the toolbars

Drag a toolbar to another toolbar position and drop it. The other toolbars reposition themselves.

To hide and show the toolbars and the toolbar tabs

You can hide a toolbar so that the toolbar tab remains visible, or you can completely hide the toolbar and its tab.

- To hide a toolbar so that the toolbar tab remains visible, click the tab at the left of the toolbar. When the toolbar is hidden, the tab appears below any visible toolbars.
- To show a toolbar with a visible tab, click the tab.

You can completely hide toolbars or toolbar tabs using items in the main menu bar. When hiding a toolbar or tab using a menu item, you'll need to use a menu item to redisplay the toolbar or tab. The titles of the menu items switch between **Show** and **Hide** depending on whether the toolbar or tab is currently hidden or visible.

- To hide a toolbar or toolbar tab, open the **View** menu and choose **Hide Navigation Toolbar**, **Hide Location Toolbar**, or **Hide Personal Toolbar**.
- To show a toolbar or toolbar tab, open the **View** menu and choose **Show Navigation Toolbar**, **Show Location Toolbar**, or **Show Personal Toolbar**.

Using the Navigation Toolbar

To use toolbar buttons for navigation and page control

Click one of the following buttons. Buttons on the toolbar provide quick access to commonly used features.

- **Back**

  Click this button to display the previous page in the history list. Hold down the button to display a pop-up menu containing the the pages you can go back to in the history list. A history list contains a hierarchy of pages you've already viewed. You can view a subset of the history list in the **G menu** or view the entire list by choosing **History** from the **C mmunicat r** menu.

- **F rward**

  Click this button to display the next page in the history list. Hold down the button to display a pop-up menu containing the history list (the pages you can go forward to). If you've retrieved a page by using the **Back** button or a history menu item, using **F rward** displays the preceding page. **Forward** is only available after you use **Back** or a history item.
- **Reload**

  Click this button to redisplay the current Navigator page, reflecting any changes made since the original loading. To reload, Navigator checks the network server to see if any change to the page has occurred. If there's no change, the original page is retrieved from a cache. If there's a change, the updated page is retrieved from the network server. If you press the **Reload** button while holding down the Shift key (Option key on the Mac OS), Navigator retrieves the page from the network server regardless of whether the page has been updated (the cache is not used).
- **Home**

  Click this button to display the home page designated in the **Navigator** preferences panel. The default page is the Netscape home page.
- **Search**

  Click this button to display a page containing a directory of Internet search engine sites and services.
- **Guide**

  Click this button to display a pop-up menu containing links to pages that offer tools and links for finding Internet information.
- **Images**

  This button is available when you have deselected the **Advanced** panel's **Automatically load images** preference item and icons have been substituted for images. Click this button to remove the substitution icons and display the page's images.
- **Print**

  Click this button to print the content area of the currently displayed page. A dialog box lets you select printing characteristics.
- **Security**

  Click this button to display the **Security Info** window. This page lets you view and interact with elements such as encryption status, personal and site certificates, security-related applications, and passwords.
- **Stop**

  Click this button to halt any ongoing transfer of page information.

Using the Location Toolbar

(On the Mac OS, the **Bookmarks** menu is available only from the menu bar.)

To use the Bookmarks pop-up menu

Click the Bookmarks icon (also called the Bookmark QuickFile icon) to the right of the label **Bookmarks**.

Click this icon to display a pop-up menu containing your bookmark links as well as menu commands for adding and editing bookmarks. Select a bookmark item from the pop-up menu to display the page represented by the bookmark.

To use the location field to specify a page's URL

1. Click in the location field.

2. Type the URL of the page you wish to view.
3. Click the Enter (or Return) key.

Alternatively, you can select **Open Page** from the **File** menu to type or choose a URL, and then open the page in the Navigator or Composer window.

On Windows, when you begin to type a URL in the location field, Navigator attempts to automatically complete the URL. As you type, Navigator checks for previously visited URLs that match the letters you have typed and, if a match is found, fills in the remainder of the letters. If more than one match occurs, you can press the down-arrow key to fill in the next matching URL.

To open URLs you have previously typed in and visited

(Windows only)

Choose an item from the location field pop-up menu. To display this pop-up menu, click the pop-up menu arrow located to the right of the location field.

To create and file a bookmark using the Page Proxy icon

First, drag the Page Proxy icon (located to the left of the location field) over the **Bookmarks** pop-up menu to display the menu, then drag and drop the icon into the desired menu item position. This creates a bookmark for the page you are viewing, and files the bookmark in the Bookmarks window. If you simply drop the icon over the pop-up menu icon, the bookmark is filed at the bottom of the Bookmarks window. You can also drag the proxy icon directly into an open Bookmarks window.

To create a toolbar button using the Page Proxy icon

Drag the Page Proxy icon (located to the left of the location field) over the personal toolbar, then drop the icon at the desired position. This creates a toolbar button for the page you are viewing.

To create an Internet shortcut using the Page Proxy icon

Drag and drop the Page Proxy icon (located to the left of the location field) onto the desktop. This creates an Internet shortcut for the page you are viewing.

To open the page you are viewing in another Navigator window

Drag and drop the Page Proxy icon (located to the left of the location field) onto another Navigator window. This opens the current page in the other window. To open more than one Navigator window, choose the pull-right item **New** from the **File** menu and select **Navigator Window**.

Using the Personal Toolbar

(On the Mac OS, the personal toolbar is not available.)

The personal toolbar lets you create buttons that link to your favorite web sites, discussion groups, mail folders, and Address Book entries. You can add, remove, and reorder buttons. You can drag and drop icons onto the toolbar to quickly create buttons.

You can use the Bookmarks window for full toolbar control. Items added to the personal toolbar are stored as bookmarks in a special folder you can designate in the Bookmarks window.

To specify a bookmark folder you wish to set as the personal toolbar folder, open the **View** menu in the Bookmarks window and choose the **Set as T lbar F lder** item. Alternatively, you can create a new folder named "Personal Toolbar Folder" that will be automatically used as your toolbar folder when no other folder is specified.

The bookmark folder you designate to hold your personal toolbar buttons can contain bookmarks or other folders. That is, bookmark folders can be embedded in your personal toolbar folder.

You can add, delete, and reorder personal toolbar buttons in the same way you add, delete, and reorder bookmarks. You designate personal toolbar buttons simply by storing the button items in a designated personal toolbar folder.

If you have a toolbar button for a particular bookmark, clicking the button opens the page. If you have a toolbar button for a bookmark folder, clicking the button displays a pop-up menu containing each of the bookmarks within the folder.

To specify a bookmark folder as your personal toolbar folder

1. Open the **Bookmarks** menu and choose **Edit Bookmarks** to open the Bookmarks window. Alternatively, you can open the **Communicator** menu, choose the pull-right **Bookmarks** item, then select **Edit Bookmarks**.
2. In the Bookmarks window, select the bookmark folder whose items you want to appear on the toolbar.
3. From the **View** menu, choose **Set as Toolbar Folder**.

The items contained in the folder you have designated appear as personal toolbar buttons.

You can also create a new folder with the name "Personal Toolbar Folder" that will automatically serve as your toolbar folder. This name is used as the default personal toolbar folder when no other folder has been specified.

To add a toolbar button for a particular bookmark or bookmark folder

- Open the **Bookmarks** menu and choose **Edit Bookmarks** to open the Bookmarks window.
- Drag the bookmark or bookmark folder icon into the designated personal toolbar folder. Alternatively, you can select a bookmark and bookmark folder icon, then choose **Add Selection to Toolbar** from the **File** menu.

You can also drag and drop the Page Proxy icon to add a personal toolbar button for the page you are currently viewing. Drag the icon (located to the left of the location field) onto the personal toolbar.

Each bookmark and bookmark folder contained in the personal toolbar folder appears as a toolbar button, though the toolbar's size allows for access to only a small number of buttons.

To remove all your toolbar buttons

1. Open the **Bookmarks** menu and choose **Edit Bookmarks** to open the Bookmarks window.
2. Click (select) the current personal toolbar folder.
3. From the **View** menu, choose **Turn Off Toolbar Folder**.

You cannot turn off a folder named "Personal Toolbar Folder." This name is used as the default toolbar folder when no other folder is selected. You can turn off such a folder by giving the folder a different name (select the folder, then choose the **View** menu's **Bookmark Properties** item and type a new name) before choosing **Turn Off Toolbar Folder**.

To replace all your toolbar buttons

1. Open the **Bookmarks** menu and choose **Edit Bookmarks** to open the Bookmarks window.
2. Click (select) a new bookmark or bookmark folder that you want to put on the toolbar.
3. From the **View** menu, choose **Set as Toolbar Folder**.

To replace or remove a button for a particular bookmark or bookmark folder

1. Open the **Bookmarks** menu and choose **Edit B okmarks** to open the Bookmarks window.
2. Drag the bookmark or bookmark folder icon out of the designated personal toolbar folder (or choose the **Edit** menu's **Delete** item to remove the item entirely).

To reorder buttons

The order of the bookmark items in the Bookmarks window determines the order of the buttons in the toolbar. To reorder the buttons, drag and drop the bookmark items in the personal toolbar folder to the order that you want.

To quickly add a button for the current page

Drag the Page Proxy icon onto the personal toolbar. The Page Proxy icon, located to the left of the location field in the location toolbar, represents the current page you are viewing. You can drag the Page Proxy icon to the toolbar when the toolbar is expanded or collapsed.

The added item appears both in the personal toolbar and in the bookmark folder designated as your personal toolbar folder.

To add a button for a discussion group, mail folder, or Address Book entry

1. Open the window of the component you wish to access.
2. Drag the icon of a discussion, mail, or address book item onto the personal toolbar.

The added item appears both in the personal toolbar and in the bookmark folder designated as your personal toolbar folder.

Viewing Bookmarks and History

Bookmarks offer a convenient means to retrieve pages whose locations (URLs) you've saved. You store your bookmarks in a list that's saved on your hard disk. Once you add a bookmark to your list, the item stays until you remove it or change lists. The permanence and accessibility of bookmarks make them invaluable for personalizing your Internet access.

History offer a convenient means of redisplaying pages you've previously viewed. Unlike bookmark lists, which store page locations that you've designated, history items are saved automatically when you display a page.

Revisiting a Page Using Bookmarks

(On the Mac OS, the **Bookmarks** menu is available from the menu bar. The Bookmarks window is opened from the Communicator menu.)

Bookmarks offer a convenient means of page retrieval. You store your bookmarks in a list. Once you add a bookmark to your list, the item stays until you remove it or change lists. The permanence and accessibility of bookmarks make them invaluable for personalizing your Internet access.

Navigator offers many options for creating a bookmark list. Basic options let you add and access a page through a pop-up menu on the location toolbar or through the **Communicator** menu of the main menu bar. The simplest way to obtain direct access to a favorite page is to open the **Bookmarks** menu and choose **Add Bookmarks**. This adds the current page as an item in the **Bookmarks** menu.

More advanced options, available from the Bookmarks window, let you create hierarchical menus, partial menu displays, multiple and shared bookmark files, list descriptions, and list searches. The Bookmarks window lists your bookmarks and offers a set of menu items to help you organize your list. In addition, many drag-and-drop options are available for creating and filing your bookmarks.

The bookmark list you create is represented by a bookmark file on your hard disk. Each item in the list contains the

title of the page (which you can choose in a menu), the associated URL (which lets Navigator retrieve the page), and some additional date information.

The same **Bookmarks** menu is displayed by either the pop-up menu in the location toolbar or the **C mmunicat r** menu of the main menu bar.

To display the Bookmarks menu

- To display the **Bookmarks** menu using a pop-up menu, position the mouse cursor over the **Bookmarks** button in the location toolbar, and press the mouse button.
- To display the **Bookmarks** menu using the main menu bar, open the **Communicator** menu, then choose **Bookmarks**. The **Bookmarks** item displays a submenu.

To add and file bookmarks using the Bookmarks menu

Choose one of the following items:

- **Add Bookmark**

  Adds the title of the currently displayed page as the last item in the bookmark list. The **Bookmarks** menu grows as you add bookmarks.
- **File Bookmark**

  The pull-right **File Bookmark** menu item lets you add the current Navigator page to a selected bookmark folder. The items in this menu are bookmark folders.

To edit or delete bookmarks using the Bookmarks menu

Choose **Edit Bookmarks** to open the Bookmarks window. You can drag and drop bookmark icons or use the window's menu items to arrange the display of your bookmarks and bookmark folders.

To delete a bookmark, select the bookmark icon in the Bookmarks window, then press the Delete key (or choose **Delete** from the **Edit** menu).

To display bookmarks using the Bookmarks menu

Choose one of the following items:

- ***Bookmark items***

  These items are the bookmarks you've created. Choose an item to display the bookmarked page. Each time you add a bookmark, the page's title is added to this menu and links to the bookmarked page.
- **Guide**

  The pull-right **Guide** menu item is a preset group of bookmarks built into Navigator. These bookmarks offer tools and links for finding Internet information. They're the same as the items offered by the **Guide** button in the navigation toolbar.

To quickly add and file a bookmark for the current page

1. Place the cursor over the Page Proxy icon in the location toolbar. The cursor and icon change when the cursor is over the icon.
2. Drag the Page Proxy icon (an icon image follows the cursor) to the Bookmarks icon, which is at the left side of the location toolbar.

If you release the Page Proxy icon over the Bookmarks icon, a bookmark for the current page is added to the bottom of the bookmark list.

If you hold the Page Proxy icon over the Bookmarks icon, the **B kmarks** menu is displayed, allowing you to further drag the Page Proxy icon to a particular position in your bookmark list. When you release the mouse button, the bookmark is filed at the menu position you have selected.

You can drag and drop the Page Proxy icon anywhere in the list, including nested bookmark folders (displayed as pull-right menu items). As you drag the icon over your current list of bookmark names, a horizontal line appears between menu items to indicate where the new bookmark will be placed when you release the mouse button.

Editing in the Bookmarks Window

(On the Mac OS, the Bookmarks window is opened from the Communicator menu. The **Bookmarks** menu is available from the menu bar.)

The Bookmarks window offers the full set of bookmark capabilities. You can double-click bookmarks to access pages, drag and drop icons to arrange your bookmarks, and use the window's menu bar to create new bookmark items and manipulate bookmark lists.

To display the Bookmarks window

Open the **Bookmarks** menu and choose **Edit Bookmarks**. Alternatively, you can open the **Communicator** menu, choose the pull-right **Bookmarks** item, then select **Edit Bookmarks**.

The Bookmarks window lists the same names that appear in the Bookmarks menu; however, the Bookmarks window gives you many more tools for organizing your bookmarks. The menus of the Bookmarks window contain items that help you build and maintain bookmark lists.

The Bookmarks window displays bookmark icons and folders in a list, arranged like files and folders on your hard disk. Each bookmark icon corresponds to an item in the **Bookmarks** menu. Each bookmark icon in a folder corresponds to a menu item under a pull-right (hierarchical or multilevel) menu. Folders can be nested in other folders.

Using the Bookmarks window, you can create and name a bookmark folder. Bookmarks that you place in a bookmark folder are accessed in pull-right menus.

To add and file a bookmark

- From the Navigator window, drag the Page Proxy icon (located to the left of the location field) over the **Bookmarks** pop-up menu to display the menu, then drag and drop the icon into the menu item position where you want the bookmark. This creates a bookmark for the page you are viewing and files the bookmark in the Bookmarks window. If you simply drop the icon over the pop-up menu icon, the bookmark is filed at the bottom of the Bookmarks window. You can also drag the proxy icon directly into an open Bookmarks window.
- From the **Bookmarks** menu, choose **File Bookmark** and select the folder where you want the bookmark. This creates a bookmark at the bottom of the selected folder.
- From the **Bookmarks** menu, choose **Add Bookmark**. This creates a bookmark at the bottom of the Bookmarks window.
- From a Navigator page, drag a highlighted link over the Bookmarks pop-up menu, then drop the icon into the menu item position where you want the bookmark. You can also drag the link into the Bookmarks window. This creates a bookmark for the page pointed to by the link and files it in the Bookmarks window.

To open a page using its Bookmarks window icon

Double-click a bookmark icon to access the corresponding page. Alternatively, you can select a bookmark, then choose **Go to Bookmark** from the **File** menu.

To position bookmark items

- Drag and drop icons into folders to arrange your bookmarks.

While dragging an item around, you'll see a box or a line indicating the position where a drop will occur. When you drag an item over a folder, you'll see a box around the folder (a drop positions the item first in the folder list). When you drag an item over a bookmark or separator, you'll see a horizontal line between adjacent items (a drop positions the item at the line).

To add a folder and a pull-right bookmark menu

Each folder represents a level (header) in a pull-right (cascading or hierarchical) menu.

1. Click the icon above where you want to position a new folder.
2. In the Bookmarks window, open the **File** menu and choose **New Folder**. This displays the Bookmark Properties dialog box.
3. In the dialog, type a name for the folder. The name of the folder will be the name of the pull-right menu item.
4. Click **OK** to close the dialog.
5. Drag and drop any bookmark icon into the newly created folder (or select the folder, choose the **New Bookmark** menu item, and enter a name and URL).

The new bookmark now appears in the Bookmark menu under a pull-right menu item.

To add a personal toolbar button for a bookmark or bookmark folder

(On the Mac OS, the personal toolbar is not available.)

1. Open the **Bookmarks** menu and choose **Edit Bookmarks** to open the Bookmarks window.
2. Drag the bookmark or bookmark folder icon into the designated personal toolbar folder. Alternatively, you can select a bookmark and bookmark folder icon, then choose **Add Bookmark to Toolbar** from the **File** menu.

Each bookmark and bookmark folder contained in the personal toolbar folder appears as a toolbar button, though the toolbar's size allows for access to only a small number of buttons. Folders in the personal toolbar folder are displayed as pop-up menus and their contents are displayed as menu items. Embedded folders (folders within other folders) are displayed as pull-right menus.

To designate a bookmark folder as your personal toolbar folder

(On the Mac OS, the personal toolbar is not available.)

1. Open the **Bookmarks** menu and choose **Edit Bookmarks** to open the Bookmarks window.
2. Select the bookmark folder whose items you want to appear on the toolbar.
3. From the **View** menu, choose **Set as Toolbar Folder**.

The items contained in the folder you have designated appear as personal toolbar buttons.

To select one or more bookmark items for editing

- On Windows and Unix, double-click a folder to display or hide its contents. On the Mac OS, click a folder arrow to display or hide its contents.
- Click a bookmark or folder item to select or unselect the item. When you single-click a folder, subsequent actions (such as editing and positioning) act upon all the contents of the folder.
- On Windows, select multiple items by holding down the Ctrl key (noncontiguous) or Shift key (contiguous) and clicking. On the Mac OS, select multiple items by holding down the Shift key (noncontiguous) and clicking.
- On Windows, when one or more bookmarks are selected, the status message area displays the URL of the most recently selected bookmark.

To create Internet shortcuts using bookmarks, page links, and the Pag

Proxy icon

- From the Bookmarks window, drag a bookmark icon to the desktop to create an Internet shortcut for the bookmark. Alternatively, you can select a bookmark, then choose **Creat Shortcut** from the **File** menu.
- From a Navigator page, drag a highlighted link from the page to the desktop to create an Internet shortcut for the linked page.
- From the Navigator window, drag the Page Proxy icon (located to the left of the location field) to the desktop to create an Internet shortcut for the page you are viewing.

To find out if a bookmark's page has been modified since your last viewing

1. From the Bookmarks window's **View** menu, choose **Update Bookmarks**. The What's New dialog box appears.
2. Choose a radio button to specify whether you want to look for changes in all bookmarks or selected bookmarks.
3. Click the **Start Checking** button.

Navigator checks the specified bookmarks for changes, while displaying progress and results in a dialog. If a page has changed, Navigator lists it alongside a distinct, accentuated icon. If the page's modifications have not been verified, Navigator lists it alongside a question mark in the icon.

To save and reopen multiple bookmark lists

Bookmarks are maintained in lists; each list is represented by a bookmark file. You can have more than one bookmark list, each with its own set of titles linked to favorite pages, although only one bookmark list can be active at a time.

1. From the **File** menu, choose **Save As** to save the current list in the Bookmarks window. The list is saved as an HTML-formatted page file.
2. Type a filename of your choosing.
3. Click **OK** to create the bookmark file.
4. From the Bookmarks window, open the **File** menu and choose **Open** to select which list to display in the **Bookmarks** menu.

To import HTML files (or hotlists) as bookmarks

You can read any HTML file containing links and convert the links into bookmarks. The links are placed in a folder atop the bookmark list.

(To import a hotlist into Navigator, you should first convert your hotlist to HTML. Several downloadable utilities perform this conversion. You can also use another browser's mail command to transmit a hotlist in HTML format.)

1. From the **Communicator** menu, choose **Bookmarks** to open the Bookmarks window.
2. In the Bookmarks window, open the **File** menu and choose **Import**.
3. Select the file you wish to import in the Import Bookmarks File dialog.
4. Click the **Open** button.

Finding a Bookmark

To find a bookmark

1. From the **Edit** menu in the Bookmarks window, choose **Find in B kmarks**.
2. In the resulting dialog, type the text you want to locate among your bookmarks.
3. Select one or more of the **L k In** checkboxes to specify whether you want to search for text contained in the bookmark name, location (URL), or description (stored with bookmark properties).

4. Select the **Match Case** checkbox if you want capital letters in the search to match exactly. For example, with **Match Case** selected, the search text "internet" will not find "Internet."
5. Select the **Whole W rd** checkbox if you want to search only for whole words that match your search text. For example, with **Whole Word** selected, the search text "Net" will not find "Netscape."

Using Bookmarks Window Menus

The Bookmarks window contains a menu bar similar to that of the Navigator window. The **Communicator** and **Help** menus are the same as in the Navigator window. The **File**, **Edit**, and **View** menus contain the following items that are specific to the Bookmarks window.

The File Menu

- **New** displays a submenu containing the same items as in the **File** menu of the main menu bar.
- **New Bookmark** lets you add a new bookmark below the current selection in the list. You'll see the Bookmark Properties dialog box, where you enter the bookmark title you wish to use in the **Name** field and the new item's URL in the **Location** field. You have the option of adding information to the **Description** field. The **Last Visited** field contains the date you last viewed the page. The **Added on** field contains the current date and time. Click **OK** to complete the insertion. Note that if the current selection is an open folder, the new item is inserted into the folder as the folder's first item. If the selection is a closed folder, the new item is inserted after the folder at the same level as the folder.
- **New Folder** lets you add a new folder (and corresponding menu item) below the current selection. You'll see the Bookmark Properties dialog box, where you enter the name of the new folder. You have the option of adding information to the **Description** field. The **Added on** field contains the current date and time. (There's no information for the **Location** or **Last Visited** field.) Click **OK** to complete the insertion.
- **New Separator** creates a separator line below the current selection in the list.
- **Open Bookmarks File** lets you select a bookmark file to use as your active bookmark file.
- **Import** lets you add the contents of a bookmark file to the end of the active bookmark file. Note that a bookmark file is an HTML-formatted page; if you try to import an HTML page that is not a bookmark file, your bookmarks may not work.
- **Save As** saves the active bookmarks as an HTML-formatted page. Type a filename of your choosing, then click **OK** to create the bookmark file.
- **Go to Bookmark** displays the page specified by the current selection in the list (provided the current selection is a page title). This action is the same as double-clicking a bookmark.
- **Add Selection to Toolbar** puts a copy of the selected bookmark or bookmark folder into the personal toolbar folder. Each bookmark and bookmark folder in the personal toolbar folder is represented by a button on the personal toolbar; folders are displayed as pop-up menus.
- **Create Shortcut** displays a dialog box with preset information about the selected bookmark. To create an Internet shortcut icon on your desktop, you can accept the current information or supply a new description and URL for any page you wish. After you have created the icon, you can click it to open Communicator with the shortcut page automatically loaded.
- **Make Alias** (on Windows, this command is in the pop-up menu displayed using the right-mouse button) lets you create an alternate bookmark (an alias) that works in the same manner as the original bookmark. Using aliases, you can put the same bookmark in multiple folders. Unlike a copy of a bookmark, an alias automatically reflects any change made to the original bookmark. When you delete a bookmark, its aliases are also deleted.
- **Go Offline/Go Online** (not on Unix) displays a dialog that lets you disconnect from your Internet provider if you're online or connect to your Internet provider if you're offline. The dialog also contains checkboxes to enable you to download mail, download discussion groups, and send messages in your Outbox just before disconnecting or just after connecting to the network. An additional button lets you select the discussion groups you wish to download. If you're using a modem connection, you might want to read downloaded messages and compose new messages while offline, and go online only when you are using the transmission services of the network. This can reduce online time and associated costs. You can use the **Offline** preferences panel to specify an online, offline, or "ask me" work mode when starting up Communicator.
- **Close** closes the Bookmarks window and saves the current list.
- **Quit** (Mac OS only) exits from Communicator.

The Edit Menu

- **Und** reverses the last action you performed, when possible.
- **Red** reverses the last undo action, when possible.
- **Cut** removes the current selection and places a copy on the clipboard. If the selection includes a folder, the folder's contents are included in the cut.
- **C py** places a copy of the current selection on the clipboard. If the selection includes a folder, the folder's contents are included in the copy.
- **Paste** places the contents of the clipboard into the bookmark list after the current selection. If the selection is a folder, the new item is inserted into the folder as the first item.
- **Delete** removes the current selection. If the selection includes a folder, the folder's contents are also removed.
- **Select All** (Mac OS only) highlights all items in the window.
- **Find in Bookmarks** displays a dialog that lets you type the text you want to locate among your bookmarks. You can select checkboxes to specify whether you want to search for the text in the bookmark name, location (URL), and description (stored with bookmark properties). Other checkboxes let you specify if you want the search to match with regard to capitalization and whole words.
- **Find Again** performs the **Find** command again.
- **Bookmark Properties** displays a window describing bookmark or folder information for the current selection. The menu item is available only if a single bookmark or folder is selected.

The View Menu

- **By Name** arranges bookmark folders and items within folders alphabetically by name.
- **By Location** arranges bookmark folders and items within folders alphabetically by URL (disregarding URL protocols such as HTTP and FTP).
- **By Created On** arranges bookmark folders and items within folders chronologically by the date the bookmark was created.
- **By Last Visited** arranges bookmark folders and items within folders chronologically by the date the bookmark was last displayed.
- **Sort Ascending** arranges alphabetical views from A to Z, chronological views from newer to older, and numerical views from 1 to 9.
- **Sort Descending** arranges alphabetical views from Z to A, chronological views from older to newer, and numerical views from 9 to 1.
- **Update Bookmarks** checks your bookmarks to see which pages, if any, have undergone modifications since you last viewed them. Before the check, you're prompted as to whether you want to check all bookmarks or only selected bookmarks. After the check, a dialog tells you how many pages were reached and how many changed. A page that has been modified is notated with accentuating lines in the bookmark icon; a page whose modification has not been verified is notated with a question mark in the bookmark icon.
- **Set as Toolbar Folder/Turn Off Toolbar Folder** makes the selected folder the container for personal toolbar buttons or, if the personal toolbar folder is selected, turns the selection off so that there are no personal toolbar buttons. Each bookmark and bookmark folder in the personal toolbar folder is represented by a button on the personal toolbar; folders are displayed as pop-up menus.
- **Set as New Bookmarks Folder** designates the selected folder as the one into which new bookmarks are added. The default is the topmost folder. First select a folder, then choose **Set as New Bookmarks Folder**.
- **Set as Bookmark Menu** limits the bookmarks that appear under the **Bookmarks** menu to those beginning at the selected folder. The default setting is the entire listing. First, select a folder, then choose **Set as Bookmark Menu**.

Setting Bookmark Properties

(On the Mac OS, the Bookmarks window is available only from the Communicator menu. You can display the Bookmark Properties dialog by opening the Bookmark window's **Edit** menu and choosing **Get Inf .**)

The Bookmark Properties dialog box is automatically opened whenever you choose **New Bookmark** or **New F lder** from the Bookmarks window's **View** menu. You can also choose to open the dialog from the Bookmarks window for any selected bookmark item.

To open the Bookmark Properties dialog for a bookmark or bookmark folder

1. From the **B kmarks** pop-up menu in the location toolbar, choose **Edit B kmarks** to open the Bookmarks window. Alternatively, open the **C mmunicat r** menu in the main menu bar, choose the pull-right item **Bo kmarks**, and then choose **Edit B kmarks**.
2. Select a bookmark or bookmark folder.
3. From the **Edit** menu, choose **Bo kmark Pr perties**.

You can use the Bookmark Properties dialog to set or modify information for any current bookmark or bookmark folder. The dialog presents bookmark list information about a single bookmark item. The information is stored in a bookmark file on your hard disk.

The following information is displayed in the dialog:

- Name (of the bookmark or bookmark folder).
- Location (URL of the bookmark).
- Description (optional text you can supply to describe the bookmark or folder).
- Number of aliases, if any, to the bookmark (which you can select by clicking the **Select Aliases** button).
- Last Visited (date you last viewed the bookmark).
- Added on (date you added the bookmark).

To add or change the name or location of a selected bookmark

1. In the Bookmark Properties dialog, type a name in the **Name** field.
2. Type a URL in the **Location (URL)** field.
3. If you want to enter optional descriptive information, type in the **Description** field.
4. Click **OK**.

To add or change the name of a selected bookmark folder

1. In the Bookmark Properties dialog, type a name in the **Name** field.
2. If you want to enter optional descriptive information, type in the **Description** field.
3. Click **OK**.

To add or change a textual description for a selected bookmark or folder

1. In the Bookmark Properties dialog, type in the **Description** field. This optional information does not affect how the bookmark works.
2. Click **OK**.

To locate one or more aliases for a selected bookmark

1. In the Bookmark Properties dialog, click **Select Aliases**.
2. Click **OK**. In the Bookmarks window, any alias items for the particular bookmark are selected.

When you view the properties of an alias, the dialog text fields (name, location, and description) display the information for the original entry. Any change to the text fields of the alias entry changes the original entry, and likewise, any change to the original entry changes the alias entry.

To create a bookmark alias

- On Windows, you can create a bookmark alias by clicking the right-mouse button when the cursor is over a selected bookmark, then selecting **Make Alias**.
- On the Mac OS and Unix, choose **Make Alias** from the **File** menu of the Bookmarks window.

Revisiting a Page Using History

Navigator maintains a history list of pages you have recently viewed. You can find different kinds of history list information in the following ways:

- opening the **Go** menu
- viewing the History window
- pressing the **Back** and **Forward** buttons
- viewing the color of visited versus unvisited links

To bring a page you've recently viewed back to your screen

Choose the page title in the **Go** menu. The **Go** menu only offers page titles you've viewed in the current session.

Alternatively, you can open the **Communicator** menu, choose **History**, and then select the page title. On Windows and Unix, the History window offers page titles you've viewed during one or more sessions.

History List Subsets (in the Go menu)

A history list does not necessarily contain all the pages you've recently viewed. Only a single lineage of history items is displayed.

For example, a series of pages containing maps might show you increasing detail as you click links. If you view consecutively linked pages with titles North America, United States, New York State, and New York City, you'll see all four items appear in the history list with New York City topmost in the list.

Furthermore, if you back up to the United States page, then view pages of California and San Francisco, California and San Francisco automatically replace New York State and New York City. The new thread of links replaces the old thread of links.

To display the most comprehensive history information

From the **Communicator** menu, choose **History**.

- On Windows and Unix, the History window displays a page's title, URL, first visited date, last visited date, expiration date, and number of visits. You can specify the number of days that page visit information is stored by setting a preference item in the **Navigator** panel. The History window offers a menu bar containing many of the same menus as the main menu bar.
- On the Mac OS, the History window displays a page's title and its URL. Page visit information is stored only for the current session (until you exit from the application).

To sort the pages in the history list (not on the Mac OS)

1. From the **Communicator** menu, choose **History** to open the History window.
2. From the History window's **View** menu, choose whether you wish to sort by title, location, dates, or number of visits.
3. From the History window's **View** menu, choose whether you wish to sort in ascending (A to Z, new to old, 1 to 9) or descending (Z to A, old to new, 9 to 1) order.

To specify the number of days until visited links (and History window items) expire

You can specify when the color of a visited link reverts to the color of an unvisited link. When the specified number of days elapses, the color of a visited link changes back to the color of an unvisited link and the page visit information is cleared from the History window.

1. From the **Edit** menu, choose **Preferences**.

2. Select the **Navigat r** panel.
3. Type a number of days in the **Pages in history expire after (Visit d links expire** on the Mac OS) field.
4. Click **OK**.

To specify that all current visited links (and History window items) expire immediately

You can specify that visited links revert to unvisited links immediately. This also clears the History window of all page visit information.

1. From the **Edit** menu, choose **Preferences**.
2. Select the **Navigator** panel.
3. Click **Clear History** (**Expire now** on the Mac OS).
4. Click **OK**.

Searching in the History List

To search for pages in the history list (Windows only)

1. From the **Communicator** menu, choose **History** to open the History window.
2. From the History window's **Edit** menu, choose **Search History List** to display the search dialog. The dialog contains pop-up menus and a text field to help you specify the pages you wish to locate.
3. Choose an item from the first pop-up menu to specify whether you want to look for search text in a page's title, location, or various date information.
4. Choose an item from the second pop-up menu to specify whether the page information "contains," "doesn't contain," "is," or "isn't" the search text. If you choose "contain," the search text must be a part of the page information; if you choose "doesn't contain," the search text cannot be a part of the page information. If you choose "is," the search text must match exactly the page information; if you choose "isn't," the search text cannot match exactly the page information.
5. Type the search text the field.
6. Click the **More** button one or more times if you want to further constrain the search by adding additional search criteria. Each time you click the button, another set of pop-up menus and text field appears. This lets you continue to narrow your search by specifying additional search text that must match a page's title, location, or date information.
7. Click the **Fewer** button one or more times to remove any unneeded sets of pop-up menus and fields you might have created with the **More** button.
8. Click the **Search** button to begin a search. Pages matching your search criteria are selected.
9. Click the **Clear** button to return the dialog to its default state.
10. Click the **Save As** button to save the history list as an HTML page.

Viewing Menu Items

The main menu bar contains the following menus:

- **File**: for working with files.
- **Edit**: for editing page content and setting Communicator preferences.
- **View**: for options on viewing page content.
- **Go**: for navigating to pages.
- **Communicator**: for displaying Communicator component windows.
- **Help**: to find help on using Communicator.

Communicator also offers a context-sensitive pop-up menu whose items are shortcuts for several commonly used and frame-specific commands. The items offered in the pop-up menu depend on which screen element the mouse

is positioned over.

On Windows and Unix, clicking the right-mouse button displays the pop-up menu. On the Mac OS, holding down the mouse button displays the pop-up menu.

On the Mac OS, the **Bo kmarks** menu is available from the menu bar, and both the **Bookmarks** and **Communicator** menu titles are displayed as icons.

Working with Files

To learn about each item on the File menu

The **File** menu allows you to open, save, print, and perform other tasks on Communicator windows. The menu contains the following items:

- **New Navigator Window**

  Creates a new browser window. This window has the same history list as the previous window and displays the oldest page in the history (usually the home page).
- **New Message**

  Lets you create and send a new mail message in the Message Composition window.
- **New Blank Page**

  Lets you create a new web page in the Composer window.
- **New Page From Template**

  Lets you create a new web page based upon an existing page template that you select.
- **New Page From Wizard**

  Lets you create a new web page based upon information you provide in a wizard. You are presented with step-by-step instructions that guide you through basic Composer features.
- **Open Page** (**Open** on the Mac OS)

  Lets you type a URL (or select a file using the **Choose File** button) to display a page in the content area. You can also specify whether you want the page opened in a Navigator window or Composer window. After you have specified a page location, click **Open** to display the page. (On the Mac OS, select the pull-right menu item **Open**, then choose **Location in Navigator** or **Location in Composer** to enter a URL or choose **Page in Navigator** or **Page in Composer** to select a file.)
- **Save As**

  Lets you save a file that contains the current Navigator page contents. You can save the page in plain text format or in source (HTML) format. On Unix, you can also save in PostScript format.
- **Save Frame As**

  Lets you save a file that contains the currently selected frame within a page. You can save the page in plain text format or in source (HTML) format. On Unix, you can also save in PostScript format.
- **Send Page** (or **Send Frame**)

  Lets you create and send a mail message in the Message Composition window with the current page included as an attachment. When the Message Composition window is displayed, the page's URL is automatically inserted in the message area. You can add to or edit the message like any other mail message. The window does not display the page you're sending, however the recipient of the message sees the message followed by a display of the attached page.
- **Send Link** (Unix only)

  Lets you create and send a mail message in the Message Composition window with the current page's URL automatically inserted in the message area

- **Edit Page**

  Lets you edit the current page. By editing the page, you are modifying the underlying HTML source text that determines the page's content and display.
- **Edit Frame** (or **Edit Frameset**)

  Lets you edit the selected frame or, if no frame is selected, frameset. By editing the frame, you are modifying the underlying HTML source text that determines the frame's content and display.
- **Upload File** (**Publish** in Composer)

  Lets you select a file to send to the FTP server specified by the current URL. This command is only available when the current page accesses an FTP site. Alternatively, you can send files to the FTP site by dragging and dropping file icons from the desktop to the Navigator window. To do this, you'll need "write" privileges to the FTP site.
- **Go Offline/Go Online** (not on Unix)

  Displays a dialog that lets you disconnect from your Internet provider if you're online or connect to your Internet provider if you're offline. The dialog also contains checkboxes to enable you to download mail, download discussion groups, and send messages in your Outbox just before disconnecting or just after connecting to the network. An additional button lets you select the discussion groups you wish to download. If you're using a modem connection, you might want to read downloaded messages and compose new messages while offline, and go online only when you are using the transmission services of the network. This can reduce online time and associated costs. You can use the **Offline** preferences panel to specify an online, offline, or "ask me" work mode when starting up Communicator.
- **Page Setup** (not on Unix)

  Lets you specify printing characteristics for subsequent printing operations.
- **Print Preview** (Windows only)

  Presents a screen display of the printed page.
- **Print** (or **Print Frame**)

  Prints the content area of the current Navigator page or, if a frame is selected, frame. You can select various printing characteristics.
- **Close**

  Closes the current Navigator window. On Windows, exits from Communicator when you close the last window.
- **Exit** (the Mac OS: **Quit**)

  Closes the current Navigator window and exits from Communicator.

See Also
Saving Internet Pages
The Offline Panel

Editing Content and Preferences

To learn about each item on the Edit menu

The **Edit** menu allows you to cut, copy, paste, and search within Communicator windows, as well as set the preferences for customizing Communicator. The menu contains the following items:

- **Cut**

  Removes the current selection and places a copy on the clipboard.
- **Copy**

  Places a copy of the current selection on the clipboard.

- **Paste**

  Puts the clipboard contents into the current Navigator page at the position of the insertion bar.
- **Clear** (Mac OS only)

  Removes the current selection.
- **Select All**

  Creates a selection made up of the entire contents of the current window.
- **Find in Page** (or **Find in Frame**)

  Lets you specify a word or phrase to locate within the current Navigator page (or frame). Click the **Find** button to begin the search. If a match is found, the text is selected and, if necessary, scrolled to a visible position in the content area. If you select the **Match Case** option (**Case Sensitive** on the Mac OS and Unix), capital and lowercase letters must match exactly; otherwise a match can occur regardless of case. On Windows, you can select **Up** or **Down** to direct the search toward the beginning or end of the page. If there is a current selection, the search begins at the selection and does not "wrap around." On the Mac OS and Unix, select **Find Backwards** to direct the search toward the beginning of the page.
- **Find Again**

  Searches for another occurrence of the text you specified with **Find in Page**.
- **Search Internet**

  Displays a page offering access to Internet search engines and other search services. Alternatively, you can click the toolbar's **Search** button to display this page.
- **Search Directory**

  Displays a dialog offering access to address book directories where you can search for people and their Internet mail addresses. Alternatively, you can find this menu item in the **Edit** menu of Messenger windows.
- **Preferences**

  Presents a dialog box listing a broad set of preference categories. Click a category to display its preference panel. Some categories are grouped beneath another category: for example, the **Fonts** and **Colors** panels are grouped beneath the **Appearance** panel. Each panel contains selectable items that help you customize Communicator's operation. Click **OK** to close the dialog box and accept your settings. Click **Cancel** to close the dialog box without accepting any changes. Click **Help** for online information about each panel.

Viewing Page Content

To learn about each item on the View menu

The **View** menu allows you to control the display of toolbars, page content, and page information. The menu contains the following items:

- **Hide/Show Navigation Toolbar**

  Hides or displays the primary toolbar buttons. (On the Mac OS, a checkmark in the menu item **Navigation Toolbar** indicates that the toolbar is currently visible.)
- **Hide/Show Location Toolbar**

  Hides or displays the location (URL) field and the **Bookmarks** menu. (On the Mac OS, a checkmark in the menu item **Location Toolbar** indicates that the toolbar is currently visible.)
- **Hide/Show Personal Toolbar** (not on the Mac OS)

  Hides or displays the personal toolbar.
- **Increase F nt** (not on the Mac OS)

Makes the font size of screen text bigger. Both the variable-width font and the fixed-width font are increased to the next larger size. The changes you make modify the preference settings in the **Fonts** panel. You can specify fonts and font sizes directly in the **Fonts** panel by opening the **Edit** menu, choosing **Preferences**, then selecting the **Fonts** panel.

- **Decrease F nt** (not on the Mac OS)

  Makes the font size of screen text smaller. Both the variable-width font and the fixed-width font are decreased to the next smaller size. The changes you make modify the preference settings in the **Fonts** panel. You can specify fonts and font sizes directly in the **Fonts** panel by opening the **Edit** menu, choosing **Preferences**, then selecting the **Fonts** panel.
- **Reload**

  Displays a fresh copy of the current Navigator page. Navigator checks the network server to see if the page has changed. If there's no change, the fresh copy is retrieved from the cache. If there's a change, the fresh copy is transmitted from the network server. If you press the navigation toolbar's **Reload** button while holding down the Shift key (Option key on the Mac OS), Navigator retrieves a fresh version from the network server regardless of whether the page has been changed (the cache is not used).
- **Show Images**

  Displays images in the current Navigator page. Typically, images automatically load into pages. However, if the **Advanced** panel's **Automatically load images** preference item is unselected when a page loads, a small icon is substituted at the position of each image. Choosing **Show Images** replaces all small icons with their corresponding images. Images are loaded from their source files; however, the page is not reloaded (links to images are not updated from the source page).
- **Refresh** (not on the Mac OS)

  Displays a fresh copy of the current Navigator page from the computer's memory to replace the one originally loaded. Unlike **Reload**, **Refresh** does not display an updated version of the page; it simply redisplays the page.
- **Stop Page Loading**

  Halts the page transfer in progress.
- **Stop Animations**

  Halts the animation in progress.
- **Page Source**

  Produces a Source window showing the current page in HTML format. The HTML source text includes the commands used to create the content of a single page. On pages with frames, you can view the HTML source of the frame by selecting (clicking on) the frame, positioning the mouse over the frame, clicking the right-mouse button, and selecting **View Frame Source** in the pop-up menu.
- **Page Info**

  Produces a page in a separate window with details about the current page's structure and composition, The information includes, if available, title, location (URL), MIME type, source, local cache file, date of last modification, content length, expiration, character-set encoding, and security status. Pages with security features also specify the type of encryption used and certificate information. The certificate states the version, serial number, issuer (identity of the certifier), and subject (identity of the server). On pages with frames, you can view the page information of the frame by selecting (clicking on) the frame, positioning the mouse over the frame, clicking the right-mouse button, and selecting **View Frame Info** in the pop-up menu.
- **Page Services**

  Displays a page with services provided by a Netscape Enterprise Server. These services allow you to directly interact with designated server capabilities. The menu item is available only when the current page has been transmitted by an Enterprise Server.
- **Encoding**

  This pull-right menu lets you specify a character-set encoding to use when page encoding is either not specified or unavailable. This might occur when the variable-width and fixed-width fonts specified in the **F nts** panel are unavailable. If you want to establish your encoding as the default for any page whose encoding is unspecified or unavailable, choose the **Set Default Enc ding** item from the **Enc ding** pull-right menu.

Navigating to Pages

To learn about each item on the Go menu

The **Go** menu allows you to navigate among pages. The menu contains the following items:

- **Back**

  Displays the previous page in the history (or frame history) list. A history list references a line of links you have viewed; a frame history references a line of frames you have viewed within a frameset.
- **Forward**

  Displays the next page in the history (or frame history) list. If you have used **Back** or a history menu item to bring back a page, **Forward** displays the page that's ahead in the history list. **Forward** is only available after you've used **Back** or a history item.
- **Home**

  Displays the home page whose location is specified in the **Navigator** panel, available by opening the **Edit** menu and choosing **Preferences**. Netscape's home page is the default.
- ***History items***

  The **Go** menu includes menu items corresponding to each page in the history list. Choose a page's title to display the page. Choose **History** from the **Communicator** menu to view the history list.

Displaying Communicator Windows

To learn about each item on the Communicator menu

The **Communicator** menu allows you to switch among each of Communicator's components and access the windows that present Communicator's primary features. The menu contains the following items:

- **Navigator**

  Displays the Navigator browsing window, which provides the tools for web capabilities.
- **Messenger Mailbox (Messenger Inbox** on the Mac OS)

  Displays the Inbox window, which allows you to work with mail (electronic mail or email).
- **Collabra Discussion Groups**

  Displays the Message Center window, which allows you to work with discussion groups (newsgroups) as well as mail.
- **Page Composer**

  Displays the Composer window, which provides the basic tools for creating web pages.
- **Conference**

  Displays the Conference window, which provides the tools for real-time voice and information collaboration.
- **Netcaster**

  Displays the Netcaster window, which provides the tools for the automatic delivery of web pages and offline browsing.
- **Show/Dock Component Bar**

Sets the placement of the component bar. In the "docked" position, the component bar is located in the bottom-right of a window border. When not docked, the component bar is shown as a floating palette.

- **Message Center**

  Displays the Message Center window, which contains the mailboxes and folders for mail and discussion group messages.
- **Address Book**

  Displays an Address Book window where you can create and modify files containing mail addresses.
- **Bookmarks**

  Displays a Bookmarks window where you can create and modify bookmark files.
- **History**

  Displays a History window that lists pages you have recently viewed. Double-clicking an item displays the selected page.
- **Java Console**

  Displays the Java Console window. Some Java programs display information here.
- **Security Info**

  Displays the **Security Info** window. This page lets you view and interact with elements such as encryption status, personal and site certificates, security-related applications, and passwords.
- ***Communicator items***

  The **Communicator** menu includes menu items corresponding to each open window. Choose an item to bring the associated window to the front. The current window is designated with a checkmark.

Finding Help

To learn about each item on the Help menu

The **Help** menu allows you to find documentation and support services for Communicator and other Netscape products. The menu contains the following items:

- **Help Contents**

  Displays the online help, with links to contents and index entries.
- **Release Notes**

  New feature information and tips for using specific versions of the software.
- **Product Information and Support**

  Displays information on Communicator, support programs, and relevant mail addresses.
- **Software Updates**

  Displays a page containing information on how to obtain the most recent upgrades to Communicator software.
- **Register Now**

  Displays a page containing the registration number for your copy of Communicator. If you have not yet registered your copy of the software, the page tells you how to register.
- **Member Services**

  A page with links that help you explore opportunities for creating and publishing your own pages on the Internet using Communicator.
- **International Users**

Information about international versions of Netscape products.

- **Security**

  Displays a page containing information about Netscape security solutions with links to technical descriptions of Netscape's implementations.
- **Net Etiquette**

  Resources with information about discussion group and Internet etiquette.
- **About Plug-ins**

  Presents MIME type information for currently installed plug-in modules. Plug-in modules are software programs that extend the capabilities of a particular Communicator platform. After you install a plug-in on your hard disk (per instructions from the plug-in), the plug-in adds capabilities seamlessly to Communicator, performing like built-in Communicator features. If there's a known incompatibility with a version of a plug-in, a dialog box informs you.
- **About Font Displayers**

  Presents font format information for currently installed font displayers. When a displayer offers more than one format, you can select a radio button to enable or disable a particular format for each font displayer.
- **About Communicator**

  Version, copyright, and license information about Communicator.

Using Pop-up Menu Shortcuts

To learn about each item on the pop-up menu

On Windows and Unix, clicking the right-mouse button displays a pop-up menu with items that are shortcuts for items that can also be found on the current window's menu bar. On the Mac OS, holding down the mouse button displays the pop-up menu.

Many items in the pop-up menu depend on where the mouse is positioned. For example:

- When you click over a link, menu items such as **Open in New Window** refer to the page specified by the link.
- When you click over an image, menu items such as **View Image** refer to the image file specified by the image.
- When a frame is selected, menu items such as **Back**, **Forward**, **View Frame Source**, and **View Frame Inf** refer to the individual frame.
- When you click over most Communicator windows, menu items apply specifically to the window's respective features.
- When you click over the location field, menu items let you edit the URL text.

The pop-up menu for the Navigator window contains the following items:

- **Open in New Window**

  Displays the specified page in a newly opened Navigator window instead of the current window.
- **Open Frame in New Window**

  Displays the selected frame in a newly opened window.
- **Open Link in Composer**

  Displays the specified page in a newly opened Composer window instead of the current window.
- **Back**

  Displays the previous page in the history or frame history list. This is the same as the **Go** menu's **Back** item.
- **Forward**

Displays the next page in the history or frame history list. This is the same as the **G menu's F rward** item.

- **Reload** (or **Reload Frame**)

  Displays a fresh copy of the current Navigator page (or frame). This is the same as the **View** menu's **Rel ad** item.
- **Show Image**

  Displays the specified image, replacing the generic image icon with the inline image. This performs the same function, one image at a time, as the **View** menu's **Show Images** item and is only visible when the **Automatically load images** setting in the **Advanced** preferences panel is unselected.
- **Stop** (or **Stop Animation**)

  Halts the page transfer (or animation) in progress.
- **View Source** (or **View Frame Source**)

  Produces a Source window showing the current page (or selected frame) in HTML format.
- **View Info** (or **View Frame Info**)

  Produces a page in a separate window with details about the current page's (or selected frame's) structure and composition.
- **View Image (*filename*)**

  Displays the specified image.
- **Set As Wallpaper** (Windows only)

  Lets you use a specified image as the screen background image. Position the mouse cursor over any image, press the right-mouse button, and select the menu item.
- **Add Bookmark**

  Creates a bookmark for the specified page.
- **Create Shortcut** (Windows 95 only)

  Displays a dialog box with preset information about the current page. To create an Internet shortcut icon on your desktop, you can accept the current information or supply a new description and URL for any page you wish. After you have created the icon, you can click it to open Communicator with the shortcut page automatically loaded.
- **Send Page**

  Lets you create and send a mail message in the Message Composition window with the current page included as an attachment. When the Message Composition window is displayed, the page's URL is automatically inserted in the message area. You can add to or edit the message like any other mail message. The window does not display the page you're sending, however the recipient of the message sees the message followed by a display of the attached page.
- **Save Link As**

  Saves the specified page to disk (instead of displaying it on screen).
- **Save Image As**

  Saves the specified image to disk (instead of displaying it on screen).
- **Save Background As**

  Saves the specified background image to disk.
- **Copy**

  Copies the selected text or specified image to the clipboard.
- **Copy Link Location**

  Copies the specified page location (URL) to the clipboard.
- **Copy Image Location**

  Copies the specified image location (URL) to the clipboard.

Saving Internet Pages

Navigator gives you the opportunity to save a page as a file on your computer. You can do this after or instead of bringing the page to your screen.

Saving a file to your hard disk allows you to display the page's information without any network connection. A file on your disk is a local file; a file out on the network is a remote file.

Some links don't transmit pages (for example, those that transmit software, sound, or movie files). You can often identify these links by noticing a URL that begins with **ftp** or ends with a file-type suffix such as **au** or **mpeg**. Clicking these links can automatically download (save) a file to disk and launch helper applications that support the file's format. Most links, however, point to pages that you can bring to your screen or specifically save on your disk.

Within a page, you can cut, copy, and paste using **Edit** menu items; however, **Cut** and **Paste** items are only effective in certain editable fields. The content area of a page is a read-only field that only enables you to select and save copies of page text for use elsewhere.

Reserved Characters in Filenames

Communicator works on several operating system platforms and reserves the use of a few special characters to help interpret URLs. To avoid problems, don't use the following characters when you create a filename:

- slash (/)
- colon (:)
- number symbol (#)

To save the current page

From the **File** menu, choose **Save As** to save the current page locally on your hard disk as a source (HTML) file or a text file. On Unix, you can also save in PostScript format.

A file saved in HTML source format retains the formatting of the original page. The source format is a text file encoded with the HTML necessary to reproduce the formatted text or image faithfully.

A file saved in text format is presented as plain text. Text format saves text without the HTML coding tags.

Where some links, such as many FTP links, automatically download and save a file to disk, **Save As** manually saves page files.

Save As lets you save an image file, but not a page's inline images.

To save the current frame

When you view a page containing frames and a frame is currently selected, the **File** menu's **Save Frame As** menu item is offered in addition to **Save As**. This lets you save only the page within a currently selected frame. The other options for saving the page are unchanged.

To save a page or image without displaying it

By using a pop-up menu item, you can save a page as a disk file instead of bringing the page to screen. A dialog prompts you for a filename. Saving to disk is particularly useful for retrieving a nonformatted page (such as a data file) not intended for viewing.

1. Position the mouse over a link.
2. Click the right-mouse button (on the Mac OS, hold down the mouse button) to display the pop-up menu.

3. If the link refers to a page, the menu item displays **Save Link As**. Choose this item to save to page to disk (instead of displaying it).
4. If the link refers to an image, the menu item displays **Save Image As**. Choose this item to save the image to disk (instead of displaying it).

You can also save a page to disk by clicking a link while holding down the Shift key (Option key on the Mac OS).

To open a saved page file or image file

After saving a file to disk, choose **Open Page** from the **File** menu. In the resulting dialog, select the file using the **Choose File** button (or type the file's URL) to display the page in the content area. The dialog also lets you specify whether you want the page opened in a Navigator window or Composer window. After you have specified a page location, click **Open** to display the page.

(On the Mac OS, select the pull-right menu item **Open**, then choose **Location in Navigator** or **Location in Composer** to enter a URL or choose **Page in Navigator** or **Page in Composer** to select a file.)

You can display the HTML-formatted text or graphic image of any local file saved in source format (though a page's inline images might be replaced with icons). You can also display plain text files.

If you want to open a saved GIF, JPEG, or other nontext file, make one of the following selections:

- On Windows, after clicking the **Choose File** button, you'll need to select from the **Files of Type** pop-up menu to make GIF, JPEG, or other nontext files appear in the dialog.
- On the Mac OS, GIF and JPEG images are available in the Open Page dialog, though for other nontext files to show up, you'll need to hold down the Option key while selecting the **Open Page** menu item.

To view and save an image file

1. Position the mouse over an image.
2. Click the right-mouse button (on the Mac OS, hold down the mouse button) to display the pop-up menu.
3. Choose **View Image** to see the image isolated on a page.
4. You can then save this image by choosing the **File** menu's **Save As** item from the main menu bar or **Save Image As** from the pop-up menu.

To save the HTML (source text) of a page

The **View** menu's **Page Source** item lets you view the HTML source of the current page. By default, source text is displayed in a Navigator window.

On pages with frames, you can view the HTML source of the frame by selecting (clicking on) the frame, positioning the mouse over the frame, clicking the right-mouse button, and selecting **View Frame Source** in the pop-up menu.

To copy page links or image links to the clipboard

1. Position the mouse over a link or image.
2. Click the right-mouse button (on the Mac OS, hold down the mouse button) to display the pop-up menu.
3. Choose **Copy Link Location** or **Copy Image Location** to copy the URL to the clipboard. When you point at an image that is also a link, you're offered both menu items.
4. After copying to the clipboard, you can paste the URL into the location field or any text area.

Alternatively, you could choose the **View** menu's **Page Source** item from the main menu bar to search for the URL of a link or image embedded in HTML source text.

To save a pag using mail

The **File** menu's **Send Page** item produces the Message Composition window that lets you send the current page as a mail attachment. You'll see that the URL of the page is automatically inserted in the message area. You can

add to or edit the message like any other mail message. The page you're attaching is not displayed in the Message Composition window, however the recipient of the message receives the message and, immediately below, a display of the attached page. If the recipient's mail address is not recognized by Communicator as being able to receive HTML mail, a dialog box asks you whether you want to send the message in HTML, plain text, or both.

Printing Internet Pages

Many of the **File** and **Edit** menu items in Communicator work as they do in other applications.

To print the contents of the current page

From the **File** menu, choose **Print**, or click the **Print** button in the toolbar. A dialog box lets you select printing options and begin printing. On Windows, you can choose **Print Preview** from the **File** menu to see a screen display of a printed page.

To print a frame

When you view a page containing frames, in the **File** menu you'll see **Print Frame** in place of **Print**. The command lets you print only the page within a currently selected frame. The dialog box options for printing the page are unchanged.

Print Layout

When printing a page, Navigator formats content according to the size of the printed page rather than the size of the onscreen window. The Print command rearranges the page layout (text is word-wrapped and graphics are repositioned) in order to accommodate paper size.

To set up the page for printing

From the **File** menu, choose **Page Setup**. You can use this command to choose page layout options including header and footer information.

Searching Within a Page

To find a word or phrase within a page

Choose the **Edit** menu's **Find in Page** item. A **Find** dialog box lets you type the string of characters you wish to find. Select the **Match case** checkbox (**Case Sensitive** on the Mac OS and Unix) to require that capital letters are matched.

On Windows, select the **Up** or **Down** radio button to direct the search toward the beginning or end of the page. If there is a current selection, the search begins at the selection and does not wrap around to the beginning of the page. On the Mac OS and Unix, select the **Find Backwards** checkbox to start the search from the beginning or end of the page.

To find the same word or phrase again, choose the **Edit** menu's **Find Again** item.

Using Page Information

To view elements of a page's structure, composition, and s curity status

From the **View** menu, choose **Page Inf** . The information, displayed in a separate window, helps you establish the page's authenticity and other security characteristics.

In the upper portion of the window, the page's structure is presented as a hierarchy of the component URLs (for example, the URLs of image files contained in the page). The lower portion of the window consists of several fields stating location, type, source, cache, length, modification date, and character-set encoding information, as well as details about the page's security status.

To interpret the security status of a page

You should verify that the information

- Is consistent with your knowledge of the party with whom you are communicating
- States that the page is encrypted or not encrypted
- Designates a page's encryption type for transmission and server certification

If a page is not encrypted, the security information tells you that encryption is not used and there is no server certificate. If a page is encrypted, the security information tells you the encryption grade, export control, key size, and algorithm type. In addition, the server certificate presents information that identifies the following:

- Who the certificate belongs to (the organization)
- Who the certificate was issued by
- Serial number
- Valid certificate dates
- Certificate fingerprint (composed of hexadecimal digits)

Like pages, certificate information is protected by encryption to ensure authenticity and integrity. The information can include the following:

- The server's fully qualified common or host name (such as hostname.netscape.com)
- Department name (optional)
- Legal, registered organization name
- Locality or city the organization resides in or is registered in
- State or province name
- Country name

To view general security information and work with Communicator's encryption and certificate features

Click the **Security** toolbar button or choose **Security Info** from the **Communicator** menu.

Filling in Forms

Pages can contain forms for entering and sending information. For example, a page might have a form with fields for you to type a name and address next to a button that sends the information to the page's author.

Forms can offer editable fields with or without default text, checkboxes, radio buttons, pop-up menus, selection lists, and buttons for sending or clearing the information you enter. The content you type into a form doesn't permanently alter the page (you don't modify the source page), yet the form gives you the ability to conveniently transmit a response.

Pages with forms let you directly reply to information you read in the page. In contrast, mail requires you to fill in fields identifying the mail address of the intended recipient and a subject summary.

To send a form

You fill in one or more fields on a page, usually labeled with instructions and configured with a button that sends the form's contents to the recipient without requiring you to provide any mail address.

Form Diversity

The author of a page determines the layout of a form. A page can contain multiple forms, each form capable of sending fields independently of another form on the page. Fields in a form can restrict the kind or range of text you enter (such as numbers only) to help you fill in the form as desired.

Typically, forms give you a fast and easy way to make a request or send back a response regarding the page you are reading. Forms can supply an interface to databases with fields that let you query for information and perform Internet searches. The Usenet discussion pages, designed for people to communicate with each other on special interests, contain forms for you to type messages and subscribe to discussion groups. Communicator has built-in links to pages with forms for you to comment about the application and request product information.

Using Caches

A cache temporarily stores the information on a page in your computer. The first time you ask for a page, Navigator retrieves the page from the network. No pages are permanently stored in a cache. If you request a page you have seen before, Navigator checks to see if the page is available in a cache. For example, if you use the **Back** button to display a page, a cache can display the page more quickly than the network can retransmit it.

Sometimes you might not want a page to be retrieved from a cache. The page you displayed initially may be different from the page currently offered by the network. If a modification to a particular URL has occurred, you may want the updated page rather than the copy (now "stale") stored in a cache. Remember, you have no control over when a server updates its pages.

When you click a link, choose a bookmark, type a URL, or click the **Reload** button, Navigator checks with the server to see if an update has occurred before bringing a page from a cache. If any change to the page has occurred, a fresh version is transmitted over the network; otherwise, a copy is quickly retrieved from a cache.

If you press the **Reload** button while holding down the Shift key (Option key on the Mac OS), Navigator retrieves a fresh version from the network regardless of whether the page has been updated. The cache is not used. This type of reload is useful if you suspect the cached copy of a page has been corrupted.

When you click the **Back** button or choose a history item, Navigator does not check the network. Since you are explicitly requesting a previously viewed page, Navigator tries first to retrieve the cached copy (if still present in the cache) even if the server offers a more recent version.

Communicator lets you customize cache settings using the **Cache** preferences panel. To display this panel, open the **Edit** menu, choose **Preferences**, and select the **Cache** panel. The **Cache** panel is in the **Advanced** category.

Memory and Disk Caches

Navigator uses memory and disk caches to improve performance and reduce network traffic. When you bring a page from the network, information is stored in both caches. Navigator retrieves a page from the memory cache more quickly than from the disk cache, though retrieving from the disk cache is still faster than fetching from the network.

The disk cache has the advantage of persistence. When you exit from a session (quit Communicator), the memory cache is emptied, but the disk cache is maintained (and takes up space on your hard disk).

Sometimes a cache can get confused (such as when servers provide inaccurate page modification dates). If you suspect a cache is acting improperly (such as providing "stale" pages) or just wish to free up space, you can clear

the caches by clicking the **Clear Mem ry Cache N w** and **Clear Disk Cache N w** buttons in the **Cache** preferences panel.

You can change the size of each cache to maximize its effectiveness. A larger cache might increase Navigator performance, though allocating too much space can constrict other applications. You might try to increase the size of the memory cache to whatever your system routinely has unused and increase the disk cache to between 2000 and 5000 kilobytes (2 and 5 megabytes).

You might find that a large disk cache increases the time required for Communicator to quit. If cache maintenance causes undue delay when you exit from the program, consider reducing the size of the disk cache.

To change the size of each cache

- Open the **Edit** menu, choose **Preferences**, and select the **Cache** panel.
- On Windows and Unix, set the cache size and location in the **Cache** preferences panel. An editable field in the panel allows you to set the directory location of the disk cache.
- On the Mac OS, set the memory cache size in the Info dialog box: from the Finder, select the Communicator application icon and choose the **File** menu's **Get Info** item. Set the disk cache size and location in the **Cache** preferences panel. A **Choose** button allows you to set the directory location of the disk cache. By default, Communicator places the Mac OS disk cache inside the Netscape Preferences folder within the System Folder.

See Also
The Cache Panel

About Plug-in Architecture

Plug-in modules are software programs that extend the capabilities of Communicator. Some plug-ins are already installed with Communicator. Other plug-ins can be installed automatically, requiring only that you click a button requesting the installation. You can also download plug-ins and manually install them on your hard disk using instructions that come with the plug-in. After installation, Communicator uses the plug-in's capabilities like other built-in Communicator features.

Plug-ins can have one of three modes of operation: embedded, full-screen, or hidden. An embedded plug-in is a part of a larger HTML page, visible as a rectangular frame within a page (embedded plug-ins are specified in HTML with the EMBED tag). A full-screen plug-in is a self-contained viewer, completely filling the content area of a Communicator window. A hidden plug-in runs in the background.

Communicator's appearance remains relatively unchanged even when plug-ins are in use. Frames without plug-in data function like ordinary frames. Basic operations such as navigation, history, and opening files are not changed by plug-ins.

Plug-in Architecture

The plug-in application programming interface (API) allows other vendors to extend Communicator with native support for new data types and additional features. Plug-ins are dynamic code modules, native to each Communicator platform. Plug-ins complement architectures such as OLE and platform-independent programming languages such as Java. Here are the primary goals of the plug-in API:

- Provide seamless new data-type support for Communicator users.
- Provide the maximum degree of flexibility for plug-in writers.
- Be functionally equivalent across all platforms.

The plug-in API supports four broad areas of functionality. Plug-ins can:

- Draw into, and receive events from, a native window element that is a part of the Communicator window hierarchy.
- Obtain data from the network via URLs.

- Generate data for consumption by other plug-ins or Communicator.

A plug-in can retrieve a URL with the same network functionality as Communicator. The data from such a URL is provided as a stream as the data arrives from the network. Plug-ins can themselves generate data that Communicator or other plug-ins can display. Plug-ins can both produce and consume data.

Plug-ins are associated with a MIME data type that Communicator does not natively support. When Communicator encounters an unknown data type from a server, Communicator looks for a plug-in that is associated with that MIME type and loads the plug-in.

About Automated Pages

Generally, pages are displayed on your screen as a result of your input. You click a link or an image to request a page. But servers also have the ability to automatically deliver or "broadcast" an updated version of a page to your screen. For example, a weather watcher might want to see an updated satellite photo at 15-minute intervals.

Communicator's Netcaster component offers wide-ranging broadcast capabilities. In addition, Navigator provides page creators and server administrators two limited, complementary capabilities for automating page delivery.

Server push

The server transmits page information to your screen. Navigator displays the information and leaves the connection to the server open. With an open connection, the server can continue to "push" updated pages for your screen to display on an ongoing basis. You can close the connection by closing the page.

Client pull

The server transmits page information to your screen along with programming code that automatically instructs Navigator to perform an action such as "reload this page in ten minutes" or "go load this URL in two minutes." After the specified amount of time has elapsed, the client (Communicator running on your computer) "pulls" updated pages to your screen according to the instructions that have been provided along with the page. You can terminate the page's actions by closing the page.

In server push technology, an HTTP connection is held open for an indefinite period of time (until the server is finished sending data to the client or until the client interrupts the connection). In client pull technology, an HTTP connection is never held open; rather, the client is told when to open a new connection and what data to retrieve. Server push uses a variant of the MIME message format "multipart/mixed" that lets a single message (or HTTP response) contain many data items. Client pull uses an HTTP response header (or equivalent HTML tag) that tells the client what to do after a specified time delay.

About Autoscroll

Autoscroll is a feature of Navigator that lets a server deliver ongoing page information to your screen automatically. The connection to the server is kept open and new page information is added. The autoscroll area (a page or page frame) automatically scrolls to accommodate the data stream. Both autoscroll and server push features leave the connection to the server open and display new content on an ongoing basis; however, autoscroll adds new information to the page whereas server push updates the entire page. You can close the connection by displaying a new page.

The autoscroll feature can support an online chat session with another user. You can view incoming text automatically without having to use the scroll bar to move down the page. You can also type and send text at the same time in an adjacent window without interrupting the incoming text stream.

To implement the autoscroll feature, page creators and server administrators use Navigator's autoscrolling tool.

Autoscroll is an HTTP header attribute. The content-type modifier AUTOSCROLL is similar to CHARSET.

As new text arrives in the autoscroll area, the text scrolls to keep the most recent line of transmitted text on the screen. You can scroll up to view previous text without having to watch the text stream, and you can scroll down to again view the incoming stream. The autoscroll area can display a maximum of 1000 lines and consists of two components:

- A Telnet-like window where text can scroll in and the most recent text is displayed.
- One or more text input areas that can send data (including graphics) to a server without interrupting the window displaying data.

Viewing the Preference Panels

To display the preference panels

1. Open the **Edit** menu and choose **Preferences**. The left side of the dialog displays a list of panel categories. The right side of the dialog displays the selected panel.
2. Click a category to display its preference panel. Some categories are grouped beneath another category: for example, the **Cache** panel is grouped beneath the **Advanced** panel.
3. Select items in the panel to customize Communicator to your specifications.
4. Click **OK** to close the dialog box and accept your settings, or click **Cancel** to close the dialog box without accepting any changes. Click **Help** for online information about each panel.

The Appearance Panel

The settings in this panel determine the Communicator component you see upon startup and the appearance of the navigation toolbar.

To specify the component window to view when you launch Communicator

Choose from **Navigator** for web browsing, **Messenger Mailbox** for mail, **Collabra Discussions** for discussion groups, or **Page Composer** for creating and editing content. You may also choose the **Netcaster** component for automatic delivery of web pages or one of the professional edition components, if available. The default is **Navigator**.

To specify the toolbar area presentation

Choose from **Pictures and Text**, **Pictures Only**, and **Text Only**. The default is **Pictures and Text**.

On the Mac OS, a **Show Tooltips** checkbox allows the display of textual tips when your cursor remains positioned over a toolbar button.

Also on the Mac OS, check the **Use Desktop Utility Pattern** checkbox to use the Macintosh system utilities pattern as the background outside the content area (such as at the top of the Navigator window and in the status message area). You can set this pattern by choosing the Desktop Patterns control panel, scrolling to a pattern, holding down the Option key, and clicking the **Set Utilities Pattern** button. The utilities pattern is displayed outside the content area once you restart the Communicator application.

The Fonts Panel

To select character-set encodings, fonts, and font sizes

An encoding represents a mapping of glyphs (such as letters or other symbols) to computer codes (such as hexadecimal digits).

Each character-set encoding from the **For the Encoding** pop-up menu is associated with the display of a variable-width (proportional) and fixed-width (monospaced) font pair. You can view or modify the association of fonts for any encoding by choosing the encoding name from the menu, then choosing items from the variable-width and fixed-width font pop-up menus. For example, the default encoding, Latin1, is associated with the variable-width font Times 12 and the fixed-width font Courier 10.

Most pages display text in a variable-width font. The **Variable-Width Font** pop-up menu specifies the font of the primary type of text in the content area. Choose from the font and font size pop-up menus to select an alternative font or font size. You can make a selection for each encoding.

Fixed-width font text is used in editable fields and certain paragraphs preformatted by the author of a page. The **Fixed-Width Font** pop-up menu specifies the font of the secondary type of text in the content area. Choose from the font and font size pop-up menus to select an alternative font or font size display. You can make a selection for each encoding.

To specify the fonts used in a page's display

You can determine whether to use fonts specified by the transmitted page or your default fonts specified in your preferences. In addition, you can determine whether to allow Dynamic Fonts that are transmitted with a page. Using page fonts helps ensure that the page display matches the display intended by the page author; however, the use of Dynamic Fonts can increase download time.

- Select **Use my default fonts, overriding document-specified fonts** to specify that Communicator's default fonts are used instead of any specified page fonts.
- Select **Use document-specified fonts, but disable Dynamic Fonts** to specify that page fonts are used only when page fonts are available without downloading.
- Select **Use document-specified fonts, including Dynamic Fonts** to specify that page fonts are used regardless of download time. This is the default.

The Colors Panel

When you click a color box, a dialog presents a color palette offering basic and custom colors. In the color palette, click any color box, then click **OK** to close the palette.

To set the color of page text and background

- Click the **Text** color box to select a color for text display. Black is the default color for plain text.
- Click the **Background** color box to select a color for background display. White is the default color for a background.
- Select the **Use Windows colors** checkbox (**Use Default Colors** button on the Mac OS and Unix) to set the text and background display to their original settings.

To create and store a custom color in the Color palette

1. Click a color box to display the Color palette.
2. Click the **Define Custom Colors** button.
3. Click inside the large color square and thin solid bar to select a color's hue, saturation, luminosity, and RGB composition. Alternatively, you can insert numerical values for each of these color-defining characteristics.
4. Click the **Add to Cust m C lors** button to insert the color in the palette.

After you add a custom color to the palette, you can select the custom color the same as you would select a basic color. Click **OK** to close the Color palette.

To set the color and underlining of unvisited and visited links

- Click the **Unvisited Links** color box to select a color for links to unviewed pages. Blue is the default color for unvisited links.
- Click the **Visited Links** color box to select a color for links to pages you have already seen. Purple is the default color for visited links.
- Select the **Underline links** checkbox to specify that text links in a page are underlined. This box is selected by default.

To specify the priority of your colors or page-specified colors

Select the **Always use my colors, overriding document** checkbox to make your color and background settings always override page-specified settings. By default, the box is unselected so that the background and colors set by a page's author are displayed.

The Navigator Panel

To specify the first page that appears when you start Navigator

- Choose **Blank page** to display an empty page when you launch Navigator.
- Choose **Home page** to display the page whose URL is specified in the Home Page location field located below the radio buttons.
- Choose **Last page visited** to display the most recently visited page when you next launch Navigator.

To specify the home page

To specify the page that Navigator displays when you click the **Home** button, type a URL in the **Location** text field. By default, this field contains the URL of Netscape's home page.

You can enter a URL in several ways:

- Type a complete URL in the location field.
- Click the **Use Current Page** button to enter the URL of the page that is now displayed on screen.
- Click the **Browse** button (**Choose Local File** on the Mac OS, **Choose** on Unix) to locate and enter a page title from an Open File dialog.

To set the expiration time of visited links and items in the History window

Enter a number of days in the History setting to specify when the color of a visited link reverts to the color of an unvisited link. When the specified number of days elapses, the color of a visited link changes back to the color of an unvisited link.

On Windows and Unix, page visits are recorded in the History window for the specified number of days.

On the Mac OS, page visits are recorded in the History window only for the current session (until you exit from the application).

Click the **Clear History** button (**Expire Now** on the Mac OS) to specify that visited links revert to unvisited links immediately, and to clear the History window of all page visits.

The Languages Panel

When you request a page, your language priorities are automatically sent as part of the request (in the HTTP header). Servers that have the capability to send you a page in more than one language can interpret your language priorities and respond to your request accordingly.

A language request entry consists of a language code and, sometimes, a region code. For example, the code *en-US* represents the English language in the United States region; the code *fr-CA* represents the French language in the Canada region. The built-in codes are standard ISO (International Standards Organization) language tags.

To add a language to your priority list

1. Click the **Add** button to display the Add Languages dialog containing a list of languages and language codes.
2. Select the language and language code item in the list. If you wish to add a code not in the list, type the code in the **Others** text field.
3. Click **OK**.

To delete a language from your priority list

1. Select the language and language code item in the priority list.
2. Click the **Delete** button.

To inform servers of your language priorities

When a web page is available in more than one language, you can prioritize which languages you prefer to use to view the page.

1. Select a language and language code item in the priority list.
2. Click the up-arrow button to increase by one position the relative priority of the selected item. Click the down-arrow button to decrease by one position the relative priority of the selected item.
3. Click **OK** after you have ordered the list according to your priorities.

The Applications Panel

Helper applications and plug-ins are external pieces of software that work in conjunction with Communicator, expanding Communicator's ability to interpret files of many different formats. The panel contains a scrolling field that lists the available helper applications and plug-ins.

You can use the panel to examine and configure how a file's format maps to a helper application. When you select an application, its file type details are displayed below the scrolling field.

File type details include:

- Extension: the common suffix used by files of this type.
- MIME Type: a standardized naming scheme for organizing divergent file formats.
- Handled By: the application or application category capable of interpreting the file.

Buttons in the panel let you add, edit, or delete applications and their associated file types.

Helper Application Background

Communicator brings files to your computer using various server protocols such as HTTP, NNTP, SMTP, and FTP. Each protocol can support different file formats.

Communicator has the built-in capability to interpret and display on your computer several formats, including the

HTML format used by HTTP servers. When Communicator retrieves a file with a format that Communicator itself cannot read, the application attempts to use a helper application or plug-in capable of reading the file.

The preferences panel lets you configure new helper applications or reconfigure current ones. When you click **New Type** or **Edit**, a dialog appears that lets you add or modify information such as file suffix extensions or actions associated with a helper application or plug-in. If you click **New Type**, the dialog appears with empty fields. If you click **Edit**, the dialog appears with the properties for the selected application.

To add a new application and associated file type

- Click the **New Type** button (**New** on the Mac OS and Unix) to display an empty dialog for adding information about a new application.
- Type the kind of file or file type in the **Description of type** field.
- Type the common suffix or suffixes used by the file type in the **File extension** field (**Suffixes** on the Mac OS and Unix).
- Type the file type or MIME type in the **MIME Type** field.
- On Windows, type (or use the **Browse** button to select) the location of the application capable of interpreting files of this type in the **Application to use** field.
- On the Mac OS and Unix, select an action in the **Handled By** area of the panel. To specify an application to interpret files, select the **Application** radio button and click **Choose**. On the Mac OS, you can also specify a type from the **File Type** pop-up menu.
- Click **OK** to store the new information.

To edit an existing application and associated file type

1. Select one helper application from the panel's list.
2. Click the **Edit** button to display a dialog for changing the information associated with the selected item. The dialog displays the suffix extensions used by the selected item.
3. Edit the file type or MIME type in the **MIME Type** field.
4. Select an action in the **Handled By** area of the panel. You can designate:
    - **Navigator**. This opens the downloaded file in the content area if the file's format is supported.
    - **Save to Disk**. This saves a file to disk after the file is downloaded.
    - **Application**. This opens the application at the specified location using the downloaded file as its document. Click the **Browse** button to select the location of the launch application.
5. Select the **Ask me before opening downloaded files of this type** checkbox if you want a dialog box notification before downloading files that are handled by applications other than Navigator.
6. Click **OK** to store the new information.

To remove an existing application and associated file type

1. Select one helper application from the panel's list.
2. Click the **Remove** button (**Delete** on the Mac OS and Unix). A warning dialog informs you of the consequences of deleting a helper application.
3. Click **OK** to remove the application.

To specify a folder for downloaded applications

(This capability is available only on the Mac OS and Unix.)

Click **Choose** to specify the location of the Downloads Folder. Before a helper application runs, Communicator temporarily stores application files on disk. After the helper application exits, Communicator deletes the files. The **Choose** button lets you select a new default folder if, for example, your default disk is short on space and you want to store temporary files in another location.

See Also
About Helper Applications and MIME Types

The Offline Panel (not on Unix)

You can specify an online, offline, or "ask me" work mode when starting up Communicator. If you're using a modem connection, you might want to read downloaded messages and compose new messages while offline, and go online only when you are using the transmission services of the network. This can reduce online time and associated costs.

After starting up Communicator, you can use the **File** menu's **Go Offline/Go Online** item to display a dialog that lets you disconnect from your Internet provider if you're online or connect to your Internet provider if you're offline. The dialog also contains checkboxes to enable you to download mail, download discussion groups, and send messages in your Outbox just before disconnecting or just after connecting to the network. An additional button in the dialog lets you select the discussion groups you wish to download.

To specify a network connection when starting Communicator

- Select **Online Work Mode** to enable Communicator to begin a network connection each time you start the application. If you are using a network that connects you to the Internet continuously, this mode is optimal.
- Select **Offline Work Mode** to disable Communicator from beginning a network connection each time you start the application. If you are using a modem or want to control when a network connection is made, this mode lets you begin your work offline (unconnected). During your work session, you can choose when you wish to begin a network connection.
- Select **Ask Me** if want Communicator to present a dialog box upon startup asking if you want to begin your network connection. If you are using a modem or want to control when a network connection is made, this mode lets you decide at startup whether you want to begin work online or offline. The dialog offers checkboxes that let you download mail, download selected discussion groups, and send messages in your Outbox just before disconnecting or just after connecting. During your work session, you can determine when you wish to close or begin a network connection by choosing **Go Offline/Go Online** from the **File** menu.

The Download Panel (not on Unix)

This panel lets you specify settings for downloading messages from the network to your hard disk. After messages are downloaded, you can read them offline (that is, without maintaining a network connection).

To specify a subset of discussion group messages to download

- Select **Download only unread messages** to specify the download of only those messages not previously read.
- Select **Download by date** to specify the subset of messages that you want to download for offline reading according to the age of the message (the date it was posted). Radio buttons permit two options: One option offers a pop-up menu to let you select a preset time period. A second option lets you type a message age as number of days.

To specify which messages to download

1. Click the **Select Messages** button (**Download Items** pop-up menu on the Mac OS) to choose the mail folders or discussion groups whose messages you want to download for offline reading.
2. Click **OK**. The number of mail folders or discussion groups you have selected is stated in the panel.

The Advanced Panel

To allow the automatic loading of page components

The following checkboxes specify settings for advanced features.

- Select **Aut matically load images** to display inline images when a page is displayed on screen. If selected, images embedded in a page are automatically loaded. If unselected, images are not loaded and are instead represented by small icons. In this case, you can load the images by choosing the **View** menu's **Sh w Images** item or clicking the **Images** toolbar button (which is visible only when the preference item is unselected). Deselecting **Automatically load images** can increase the speed for displaying page text. By default, this item is selected.
- Select **Enable Java** to allow Java applets to run automatically. By default, this item is selected.
- Select **Enable JavaScript** to allow JavaScript code that's embedded in a page's HTML source to execute. By default, this item is selected.
- Select **Enable style sheets** to allow formatting as specified by the style sheet feature. By default, this item is selected.
- Select **Enable SmartUpdate** to allow automatic update installations of Communicator software over the network. By default, this item is selected.
- Select **Send email address as anonymous FTP password** to determine whether your electronic mail address is sent when you provide a password to an anonymous FTP site. The default, unselected, does not submit your mail address to the FTP site.

To specify the acceptance of cookie information

A "cookie" is a piece of limited, internal information transmitted between server software and Communicator. For example, a server might use cookie information to determine how many connections to a site have come from different computers (so multiple connections from the same computer are only counted once). The following buttons let you determine how cookie information is distributed.

- Select **Accept all cookies** to enable the transmission of cookie information. By default, this item is selected.
- Select **Accept only cookies that get sent back to the originating server** to disable the transmission of cookie information to servers other than the server that originally transmitted the page.
- Select **Disable cookies** to turn off the transmission of cookie information.
- Select **Warn me before accepting a cookie** to receive a notification dialog box when Communicator accepts a cookie.

The Cache Panel

To set the size of or clear the memory cache

Enter a number in the **Memory Cache** field (on Windows and Unix) to specify the size of the memory cache. The default is 1024K on Windows, 3000K on Unix.

Click the **Clear Memory Cache** button to empty the cache immediately.

On the Mac OS, specify memory requirements in the application's Info box: From the Finder, select the Communicator icon and choose **Get Info** from the Finder's **File** menu.

To set the size of or clear the disk cache

Enter a number in the **Disk Cache** field to specify the size, in kilobytes, of the disk cache. The default is 7680K (5000K on Unix).

Communicator performs cache maintenance when you exit from the application. If you find that exiting takes longer than you wish, you might want to reduce the size of the disk cache.

Click the **Clear Disk Cache** button to empty the cache immediately.

To set the location of the disk cache directory

The **Disk Cache Folder** field specifies the disk cache location. Click **Ch se F lder** to select a new location.

To specify how often the page in the cache is compared to the page on the network

By specifying how often Navigator checks the network for page revisions, you can determine whether you're brought an updated page from a network server rather than a potentially "stale" page stored in the cache.

- Select **Once per session** to check for page revisions only once during the time you start and quit the application. By default, this item is selected.
- Select **Every Time** to repeatedly check for changes when you request a page, at the cost of slower performance.
- Select **Never** to perform no verifications, so a page available in the cache is always displayed from the cache.

If you find that pages that should be in the cache are taking longer to appear than they should, make sure the preference is not set to **Every Time**, because the verification requires a network connection that takes time.

Note that you can always obtain page revisions by clicking **Reload** in the toolbar. Navigator checks the network server and, if the page is unchanged, a copy is retrieved from the cache. If the page has changed, a copy is transmitted from the network server. If you press the **Reload** button while holding down the Shift key (Option key on the Mac OS), Navigator always retrieves a copy from the network server without regard to the cache.

See Also
Using Caches

The Proxies Panel

Ordinarily, Communicator does not require proxies to interact with the network services of external sources. However, in some network configurations the connection between Communicator and a remote server is blocked by a "firewall." Firewalls protect information in internal computer networks from external access. In doing so, firewalls might limit Communicator's ability to exchange information with external sources.

To overcome this limitation, Communicator can interact with proxy software. A proxy server sits atop a firewall and acts as a conduit, providing a specific connection for each network service protocol. If you are running Communicator on an internal network from behind a firewall, you'll need from your system administrator the names and associated port numbers for the server running proxy software for each network service. Proxy software retains the ability to communicate with external sources, yet is trusted to communicate with the internal network.

To designate the conduit between your computer and the Internet

Select **Direct connection to the Internet**, **Manual Proxy Configuration**, or **Automatic Proxy Configuration**.

- Select the default, **Direct Connection to the Internet**, if you use a direct connection to the Internet.
- Select **Manual proxy configuration** if you want to customize a proxy configuration; then click the **View** button (**Configure** on the Mac OS) to display a dialog box for entering the settings as described below.
- Select **Automatic proxy configuration** if you have a configuration file designed expressly for your proxy server; then provide the file's URL in the adjacent text field. Click the **Reload** button to reload the configuration URL specified in the text field.

The following describes manual proxy configurations.

A single computer can run multiple servers, each server connection identified with a port number. A proxy server, like an HTTP server or a FTP server, occupies a port. Typically, a connection uses standardized port numbers for each protocol (for example, HTTP = 80 and FTP = 21). However, unlike common server protocols, the proxy server has no default port. Communicator requires that for each proxy server you specify in a proxy address field, you also specify its port number in the **P rt** field.

- Text in each proxy field designates the host name of each protocol's proxy server. (Often, a single proxy server handles the three major protocols: HTTP, FTP, and Gopher.) This can also be a numeric IP address of the proxy server.
- A number in each adjacent **P rt** field identifies the port number used by the proxy server.

Fields for proxies and ports are offered for FTP (File Transfer Protocol), Gopher, HTTP (HyperText Transfer Protocol), Security (Secure Sockets Layer protocol), WAIS (Wide Area Information System), and SOCKS (firewall bypass software).

The field under **Exceptions** (in the Manual Proxy Configuration dialog) lets you bypass the proxy server for one or more specified local domains. For example, if you specify

HTTP proxy: **aserver.netscape.com** Port: **8080**

Do not use proxy servers for domains beginning with: **adomain,bdomain,netscape.com**

then all HTTP requests for the adomain, bdomain, and netscape.com host servers go from Netscape directly to the host (not using any proxy). All HTTP requests for other servers go from Netscape through the proxy server **aserver** on port 8080, then to the host. A proxy that runs on a host server outside a firewall cannot connect to servers inside the firewall. To bypass the firewall's restriction, set the **Do not use proxy servers for domains beginning with** field to include any internal server you're using. If you use local hostnames without the domain name, list them the same way. Multiple hostnames are delimited by commas, and the wildcard character (*) cannot be used.

The Disk Space Panel

The options in this panel let you save disk space by specifying when messages are deleted and compacted.

To limit the size of messages you download

1. Select the **Do not download any message larger than** checkbox.
2. Enter a number of kilobytes specifying the maximum size of a message that you want to download.

This option lets you restrict the downloading of large messages in order to conserve disk space and avoid delays.

To specify when to compact message folders

1. Select the **Automatically compact folders when it will save over** checkbox.
2. Enter a number of kilobytes specifying how large recoverable disk space can grow before you automatically compact folders.

This option automatically compacts message folders whenever the folders can be compacted by a specified number of kilobytes.

To specify how long discussion messages are kept available

Select one of three radio buttons under **When it's time to clean up messages**. This setting lets you specify expiration times for messages you have downloaded. Expired messages are deleted.

- Enter the number of days of keep messages. This deletes older messages based upon their arrival date.
- Select the **Keep all messages** radio button to not delete messages.
- Enter the number of newest messages to keep. This deletes older messages based upon the quantity of new messages.

Select the **Keep only unread messag s** checkbox to delete read messages immediately.

To save disk space by retaining only message subject lines (Windows only)

1. Click the **More Options** button.
2. Select the **Remove message bodies nly lder than** checkbox.
3. Enter the number of days to keep message bodies. This deletes older messages (but not the message headers) based upon their arrival date.

Using Drag-and-Drop Shortcuts

You can drag and drop icons, text, and images from place to place in Communicator. Below is a summary of Navigator's drag-and-drop options (with the result of the action in parentheses). In addition, Communicator's mail, discussion group, and page composing components offer similar drag-and-drop capabilities.

You can drag the following:

- From the Navigator window, drag the Page Proxy icon.
- From the Bookmarks and History windows, drag page icons.
- From the content area of the Navigator window, drag linked text or linked images.

You can drop icons and links on the following targets:

- personal toolbar (to create a toolbar button)
- another Navigator window (to open the page)
- Bookmark pop-up menu or Bookmarks window (to create or reposition a bookmark)
- Desktop (to create an Internet shortcut)
- Message Composition or Composer windows (to create a link or attachment)

You can also drag plain text or plain images to the Message Composition or Composer windows to paste the text or image. Dragging an image to the attachment pane or non_HTML pane attaches the image instead of pasting the image inline.

Windows 95 Shortcuts

Internet shortcuts are available on the Windows 95 version of Communicator. These shortcuts let you double-click a desktop icon to open Communicator with a particular page automatically loaded.

- To create an Internet shortcut for the page you are viewing, drag the Page Proxy icon (the small icon to the left of the location field) onto the desktop.
- To create an Internet shortcut for a link on a page, drag and drop the link onto the desktop.
- To create an Internet shortcut for a page in your bookmark list, drag the page icon from the Bookmarks window onto the desktop. Alternatively, you can choose **Create Shortcut** from the Bookmarks window's **File** menu.
- To create an Internet shortcut for any page, click the right-mouse button to display the pop-up menu and select the **Create Shortcut** item. This displays the **Create Internet Shortcut** dialog box containing a **Description** field and a **URL** field.

By default, the **Description** field is preset with the words **Shortcut to** followed by the title of the page you are viewing and the **URL** field is preset with the page's URL. You can modify the contents of either field to specify any page you wish. Click the **OK** button to create the Internet shortcut. The icon appears on the desktop.

Once you have created the Internet shortcut icon, you can drag and drop the shortcut icon (like a bookmark) onto the Communicator window to automatically open the shortcut page. Even if Communicator is not running, you can drag and drop the shortcut icon on top of the Communicator icon to open the application with the shortcut page automatically loaded.

Using Windows Tips

Command-line options

You can control which Communicator components open initially, and their subsequent actions, by using command line configuration options.

To edit a command line option, open the Properties dialog of a Netscape application icon or shortcut (on Windows 95, also click the Shortcut tab). On the Command or Target line, you can add one or more options, separated by a space.

For example, to open Collabra, use the command line: C:\Program Files\Netscape\Program\netscape.exe -news. To specify a particular home page upon launch, substitute its URL for the Netscape home page in the command line: C:\Program Files\Netscape\Program\netscape.exe -h http://home.netscape.com/.

- -address (open the Address Book)
- -browser (open Navigator regardless of any conflicting preferences)
- -compose (open Composer)
- -compose [@attachments] | [-attachment] (open Composer with attachments)
- -compose [message @attachments] | [message -attachment] | [message] | [@attachments] | [-attachments] (open Composer, automatically inserting message and attachments, if supplied)
- -edit (open Composer, with a blank page)
- -edit [filename] (open Composer and display the specified HTML page)
- [filename] (open Navigator and display a local HTML page)
- -folders (open the Message Center window to see all folders)
- -h [URL] (open Navigator with the specified home page)
- -i [.ini_file_name] (specifies the custom .ini file to use upon launch)
- -inbox (open Messenger's Inbox)
- -k (open in kiosk mode, displaying the browser without menus and other user-interface features)
- -mail (open Messenger)
- -new_account (used in Internet Access dial-up editions and requiring a special MUC.DLL, creates a dummy profile and launches the Account Setup appliction; the dummy profile will be overwritten with a real one that's created during the Account Setup process)
- -news (open the Message Center window and select the first subscribed discussion group)
- -new_profile (before Communicator opens, ask the user to fill out a new profile)
- -P ["user's profile name"] (run Communicator using a particular user's profile (profile.cfg file)
- -profile_manager (before Communicator opens, display the Profile Manager so the user can choose the correct identity)
- -sk (open in super-kiosk mode, displaying a resizable browser without menus and other user-interface features; developers can use this "canvas" mode with JavaScript to expand control over the appearance and features of the browser window.)
- -start_java (starts Java support while the Communicator splash screen is up, providing smooth application launch)

Parameter Definitions

- message: The name of a message file, including its full path. The default search location is the temp directory.
- attachments: The name of an attachments list file, including its full path. The default search location is the temp directory.
- filename: The full path to the HTML document.
- URL: The URL of the page to display.
- "user's profile name": The individual user's name as it appears in the Profile Manager.

Syntax Rules

- File names or paths with spaces have to be enclosed in quotes. For example, "my file name".
- Commands and parameters aren't case sensitive (except for the -P command, which must be capitalized).
- The hyphen (-) delimits a command.
- Blank spaces ( ) separate commands from parameters, and parameters from each other, except when delimited by quotes.

- The at symbol (@) delimits the name of an attachment list file.
- The hyphen (-) delimits the name of a single attachment file.

Windows 3.1 Differences

- Must be run from the same directory as netscape.exe.
- Command lines begin with drive:\netscape\navstart rather than the path to netscape.exe.
- Command options (arguments) for navstart.exe are the same as for netscape.exe. For example, to run Messenger, the command line could be C:\Program Files\Netscape\Program\navstart.exe -mail

Shortcut to cycle among fields and buttons

Pressing the Tab key is a shortcut for selecting links, fields and buttons, or moving the cursor from one form element to the next. The cursor's current focus determines which items are affected. Typically, the focus is on the location field so that clicking the Tab key selects page elements beginning with the contents of the location field. If the current page contains form fields or other form elements, and the focus is within the form, pressing the Tab key moves the cursor to, or selects, the next form element.

Shortcut to cycle among open Communicator windows

Simultaneously press the Ctrl and Tab keys to consecutively bring to the front each open Communicator window.

Registry versus netscape.ini

The 32-bit version of Communicator uses the system registry instead of a netscape.ini file for Communicator's initializations and preference settings. To manually edit these preferences, run regedit.exe. On the 16-bit version, Communicator looks in win.ini in this section

[Netscape]

ini=

for the location of the netscape.ini file. If the file doesn't exist, Communicator looks for the file in the directory where the application runs. You might also be able to copy your .ini file from other browsers to the netscape.ini file. Be sure to add fields for History File and File Location, and to convert hotlist entries to Navigator bookmarks.

Using Mac OS Tips

Bookmark shortcuts

Bookmark shortcut icons enable you to double-click a desktop icon to open Navigator with a particular page automatically loaded. You can store and manipulate shortcut icons like other Finder icons.

To create a Bookmark shortcut, drag the page icon from the Bookmarks window onto the desktop. Note that you can create an HTML copy of a page by dragging and dropping a link onto the desktop; however, a copy of a page is a text file and differs from a bookmark to a page.

Once you have created the Bookmark shortcut icon, you can double-click the icon to automatically open the shortcut page. You can also open the page by dragging and dropping the icon onto the Navigator window. Even if Communicator is not running, you can drag and drop the shortcut icon on top of the Communicator icon to open Communicator with the shortcut page automatically loaded.

More drag-and-drop support

In addition to drag-and-drop bookmarks, you can drag a link onto the Navigator window to load a page. You can also drag a link from your History window. Dragging and dropping a link onto the desktop saves the page as an

HTML text file.

Viewing HTML source

Navigator uses a Source window to display HTML source; however, you can specify a different default viewer (such as a text editor) by using the **Applications** preferences panel.

1. Open the **Edit** menu and choose **Preferences**.
2. Select the **Applications** panel.
3. Select the "View Source" type in the **Description** field.
4. Click the **Edit** button.
5. Select the **Application** radio button.
6. Click the **Browse** button and use the resulting dialog to locate the application you wish to use as the default viewer (or type its location in the adjacent field).
7. Click **OK** to close the **Applications** panel.

Subsequently, when you choose **Page Source** or **Frame Source**, the HTML text appears in a window of your selected application. When you use **Save As** to save a page as HTML, the creator is the same as the one set for the chosen application.

Selecting text on a grayscale monitor

You might not be able to see selected text if the selected text color looks like Communicator's default background color (light gray). To correct this, you can change your Communicator background, or use the Mac OS's **Color** control panel to choose a lighter highlight color, such as yellow, or a darker one, such as red. These default to sufficiently lighter or darker grays to give contrast to selected text.

URL in Info box

Whenever you download a file to disk (using the pop-up menu item or clicking a link with the Option key held down), Communicator tries to set the comment field in the file's Info box to the URL of the file. To display the Info box, choose **Get Info** from the Finder's **File** menu.

Keyboard shortcuts

- Press the Page Up, Page Down, Up Arrow and Down Arrow keys to vertically scroll windows.
- Press Command-Left Arrow to go back. Click Command-Right Arrow to go forward.
- Press Tab to select the contents of the location field. If the current page contains form fields, pressing the Tab key moves the cursor in sequence to the next form field.
- Hold down **Option** when clicking a link to load a page to disk rather than to the screen.
- Hold down **Option** when choosing the **File** menu's **Open File** item to allow Communicator to open any local file (files of all types are displayed in the file dialog).
- Hold down **Option** when double-clicking an item in the Bookmarks window to display the bookmark's properties rather than to load the page.

Using Unix Tips

Command-line options

In the following list, arguments that are not switches are interpreted as either files or URLs to be loaded:

- -help (lists all options)
- -version (to show the version number and build date)
- -display (to specify the X server to use)
- -geometry <=WxH+X+Y> (to position and size the window)
- -visual (to use a specific server visual)

- -install (to install a private colormap)
- -no-install (to use the default colormap)
- -ncols (when not using -install, set the maximum number of colors to allocate for images)
- -mono (force 1-bit-deep image display)
- -iconic (to start up iconified)
- -xrm (to set a specific X resource)
- -remote (to execute a command in an already running Communicator process)
- -id (the id of an X window to send the -remote commands; if unspecified, the first window found is used)
- -raise (when following -remote commands, causes the window to raise itself to the top)
- -noraise (when following -remote commands, does not auto-raise the window)

Real-time decoding of audio or video files

You can download a file in two ways: wait for the entire file and then launch an external viewer, or launch the viewer and then send the viewer data arriving from the network. With a viewer that can accept streaming input, you can play audio and video files directly from the network.

Default window size

To set the default size of the window, use this command-line option:

-geometry =620x950+630+40

or this X resource:

Netscape*TopLevelShell.geometry: =620x950+630+40

To set sizes of individual windows, set the following X resources:

- Netscape*Navigator.geometry: WxH+X+Y (Netscape window)
- Netscape*Mail.geometry: WxH+X+Y (Messenger window)
- Netscape*News.geometry: WxH+X+Y (Discussion Groups window)
- Netscape*Bookmark.geometry: WxH+X+Y (Bookmarks window)
- Netscape*AddressBook.geometry: WxH+X+Y (Address Book window)
- Netscape*Composition.geometry: WxH+X+Y (Message Composition window)
- Netscape*TopLevelShell.geometry: WxH+X+Y (sets all of the above windows to be the same size)

The -geometry command-line option sets the sizes of Communicator windows.

Netscape.ad file

From the Netscape.ad file, you can change default background colors and background images. You can also change fonts in the Messenger, Discussion Groups, Bookmarks, and Address Book windows. To avoid mixing up resources between versions, you should only install the resources you need rather than the whole Netscape.ad file. You can copy the few resources you need and put them in your .Xdefaults file in your home directory.

The following fonts are used in the window outline lists. Note that no white space follows the end of any line.

*XmLGrid*fontList:\

-*-helvetica-medium-r-*-*-*-100\

-*-*-*-*-iso8859-*,\

-*-helvetica-bold-r-*-*-*-100\

-*-*-*-*-iso8859-*=BOLD,\

-*-helvetica-medium-o-*-*-*-100\

-*-*-*-*-iso8859-*=ITALIC

Operating with OLE

The OLE (Object Linking and Embedding) specification provides a way for OLE-compliant applications to work embedded within one another. An application that is an OLE server can operate within an OLE container.

For example, Communicator, acting as an OLE server, can be displayed within a container application such as Wordpad or Excel. In this manner, you can have a fully capable web browser inserted into your documents or spreadsheets. Likewise, Communicator, acting as an OLE container, can display an application such as Wordpad or Excel provided that the page's HTML uses the EMBED tag to designate the embedded server document.

A OLE server can be activated in place. Thus, when you activate (double-click) the OLE object, the object remains stationary and functions within the application (not producing a new window). OLE servers also have the capability to be miniservers (for OLE 1 compatibility). When you activate a miniserver in your container document, the native application is activated and functions in a new window. Most OLE 2 containers, including Communicator, can be made to act as an OLE 1 container if you hold down the Ctrl key and double-click the embedded OLE object.

OLE servers, when activated in place, take over the user interface of their host. For example, if you create a Word document, insert a Communicator object, then double-click the embedded Communicator application, the Word toolbar is replaced with the Communicator toolbar and the Word menus change to display the relevant Communicator menus.

Installing and Using Media Player

Netscape Media Player is a plug-in that lets you receive high-quality streaming audio and synchronized multimedia directly on your desktop. Media Player is used in conjunction with Netscape Media Server.

To install Media Player, use the installer or script supplied with the software and follow the onscreen instructions.

To run Media Player, you'll need to specify the type of Internet connection. If you use Windows, you'll need to provide this information during the installation process. If you're using the Mac OS or Unix, you'll need to specify this information after installation.

The two types of Internet connection you can specify are TCP and UDP.

- Specify TCP if you are using a computer that is behind a firewall (on an intranet). Although TCP is sometimes slower that UDP, most firewalls block UDP.
- Specify UDP if your computer is not behind a firewall. UDP is the preferred protocol for sending audio over a network; it is suitable for real-time delivery and is faster than TCP. However, it is not always as reliable as TCP.

If you want to change this specification after you've installed Media Player, you can do so in the Properties dialog box. To display this dialog box, right-click on the Media Player interface (Option-click on the Mac OS) and choose **Properties**. Choose **Request Multicast**, **Request RTP framing**, or **Request TCP/IP transport**, and click **OK**.

Use the Media Player controls (similar to the controls on any audio playing device) that appear in an HTML page:

- Click the Play/Pause button to begin playing an audio file or to pause the audio file when it is playing.
- Click the Stop button to stop playing an audio file.
- Click the plus (+) button to increase the volume of the audio file; click the minus (-) button to decrease the volume.
- Drag the position slider to seek within an audio file.
- Click the Options button to display a menu, from which you can display a properties dialog box or information about the currently playing audio clip.

Setting Media Player Properties

To set Media Player properties, click the **Options** button (if one appears in the player controls) and choose **Properties** from the pop-up menu that appears.

If you don't see an **Options** button, you can still display the pop-up menu:

- If you are using Windows or Unix, right-click anywhere on the Media Player interface.
- If you are using the Mac OS, Option-click anywhere on the Media Player interface. You can specify bandwidth, connection, proxy, clip, and local playback settings by clicking on the appropriate tab.

Bandwidth Settings

Bandwidth is the maximum number of bits per second delivered by a network or the amount of information transmitted over a communications link. When you use the correct bandwidth settings, you're more likely to avoid transmission delays.

To choose bandwidth settings:

1. Select the Bandwidth tab and specify the bandwidth you are using, or select **Custom** and type a bandwidth.
2. Click **OK**.

To use this as the default setting, check **Set As Default**.

Connection Settings

To choose a UDP connection:

1. In the **UDP Base Port** field, type the port number to which you want Media Player to listen. (The default is 13,000.)
2. In the **UDP Port Range** field, type the range of UDP port numbers to which you want Media Player to listen. (The default is 100.) For example, if the range is 100, Media Player listens to port numbers 13,000 through 13,100.
3. To request a multicast connection, if available, select **Request multicast**. (Multicasting is described below.)
4. To request RTP framing, select **Request RTP framing**. RTP framing consumes more bandwidth than the custom packetization implemented by Media Player.
5. To choose a TCP/IP connection instead of UDP, select **Request TCP/IP transport**.

To run Media Player, you'll need to specify the type of Internet connection. If you use Windows, you provided this information during the installation process. If you're using the Mac OS or Unix, you'll need to specify this information after installation.

The two types of Internet connection you can specify are TCP and UDP.

- Specify TCP if you are using a computer that is behind a firewall (on an intranet). Although TCP is sometimes slower that UDP, most firewalls block UDP.
- Specify UDP if your computer is not behind a firewall. UDP is the preferred protocol for sending audio over a network; it is suitable for real-time delivery and is faster than TCP. However, it is not always as reliable as TCP.

If you want to change this specification after you've installed Media Player, you can do so in the Properties dialog box. To display this dialog box, right-click on the Media Player interface (Option-click on Mac OS) and choose **Properties**. Choose **Request Multicast**, **Request RTP framing**, or **Request TCP/IP transport**, and click **OK**.

Multicasting allows data packets to be delivered to multiple destinations. With multicasting, you can send a packet from a server to multiple clients. Clients "tune in" to the server multicasting. This way, you do not have to send the packet individually to each computer. This helps avoid delays in transmitting data. If you experience problems using multicasting, see your system administrator.

Proxy Settings

To access streamed audio files from a Netscape Media Server through a Netscape Media Proxy Server:

1. Select **Enable proxy**.
2. In the **Proxy Name** field, enter the name of the proxy server.
3. In the **Proxy Port** field, enter the port number to which it listens.
4. Click **OK**.

To use this as the default setting again, check **Set As Default**.

Clip Settings

To choose audio clip settings:

1. For packet loss tolerance, click **High**, **Moderate**, or **Low**. **High** indicates that Media Player will prompt you to stop playing the clip if 30 percent or more of the data packets are lost during transmission. **Low** indicates that Media Player will prompt you to stop playing the clip if more than 10 percent of the data packets are lost during transmission.
2. In the **Sound prebuffering** field, enter the number of seconds of the clip to hold or prebuffer before playing the clip.
3. If you want Media Player to download a compression or decompression utility (codec) to decompress an audio file, select **Attempt to download a codec if absent in the system**.
4. Select **Resample non-standard sampling rates** if the clip you are listening to does not sound correct.
5. If you want to listen only to the audio portion of a multimedia presentation, select **Disable synchronized multimedia**.
6. Click **OK**.

To use this as the default setting, check **Set As Default**.

Local Playback Settings

Local playback allows you to play back files without network or Media Server access, as long as the files are stored on your hard disk. This feature also allows you to distribute media content easily. For example, you can create a .lam file, play it with Media Player, and publish the HTML content without having access to Netscape Media Server. Also, this feature lets you publish the same content that is on the network. Local playback is enabled by default.

To set the local playback settings:

1. To receive the best sound quality, check **Use highest quality for local playback**.
2. To turn off local playback, select **Disable local playback, always go through network**. If local playback is disabled, Media Player uses the files on the Media Server even if the same files exist locally.
3. To turn off the tips that pop up when you keep your pointer above the Play, Pause, or Stop buttons, select **Disable tooltips**.

To use this as the default setting, check **Set As Default**.

Clip Statistics and Technical Information

Click the **Options** button (if one appears in the player controls) and select **Information About the Clip**.

If you don't see an **Options** button, you can still display the pop-up menu:

- If you are using Windows or Unix, right-click anywhere on the Media Player interface.
- If you are using the Mac OS, Option-click anywhere on the Media Player interface.

You can choose Statistics or Technical Info.

Technical Information

This information includes the name of the Media Server and its port number, the filename and version of the audio clip, transport information, and details of the audio format.

Statistics

This information includes the play time of the clip, the total number of data packets received, and the total number of data packets lost. While the clip is playing, you can click **Refresh** to view the most current statistics. The clip name and copyright information may also be included.

About Encryption

Netscape software allows computers to transfer information in a way that makes the misappropriation of the forms and mail you send or the pages and mail you receive more difficult. Security issues arise because information traveling on the Internet usually take a circuitous route through several intermediary computers to reach any destination computer. The actual route your information takes to reach its destination is not under your control.

As your information travels on Internet computers, any intermediary computer has the potential to eavesdrop and make copies. An intermediary computer could even deceive you and exchange information with you by misrepresenting itself as your intended destination. These possibilities make the transfer of confidential information such as passwords or credit card numbers susceptible to abuse.

Communicator and Netscape servers use patented RSA public key cryptographic technology and custom software to allow you to send and receive information using built-in encryption capabilities. The protocols use open standards.

Your computer and the intended destination can encrypt and decrypt your information. In transit, the encrypted information is jumbled; an intermediary can continue to route the information, and even make copies of it, but is not provided with the tools to decrypt the information.

As part of the cryptographic technology, Communicator and Netscape servers provide a mechanism for Internet server authentication. This makes it more difficult for an intermediary computer to pose as your destination computer.

Communicating Information Such as Credit Card Numbers

You can enter your credit card number on an encrypted (**https**) Netscape Communicator form and transmit the form over the Internet to an SSL server to reduce the risk of an intermediary obtaining your credit card information. The encryption features offered by Netscape technology helps protect commercial transactions, as well as all other communications, from misappropriation and fraud that can occur as information passes through Internet computers.

Encrypted communications do not eliminate all of an Internet user's concerns. For example, you must be willing to trust the server administrator with your credit card number before you enter into a commercial transaction. Security technology helps protect the routes of Internet communication; security technology does not protect you from unreputable or careless people with whom you might choose to do business.

The situation is analogous to telling someone your credit card number over the telephone. You may be confident in knowing that no one has overheard your conversation (privacy) and that the person on the line works for the company you wish to buy from (authentication), but you must also be willing to trust the person and the company.

Server administrators need to take additional precautions to protect against security breeches. To protect your information, they need to maintain physical security of their server computers and control access to software passwords and private keys.

Personal and Site Certificates for Signed Communications

Personal certificates identify you to others on the Internet and enable person-to-person encryption. They serve as digitally-signed identification cards. Certain sites might require that you present a personal certificate to access their servers.

Personal certificates are also used for signed mail communications. You need a personal certificate to sign mail and for others to use to send you encrypted mail.

You can learn about personal certificates and how to obtain them in the **Security Info** page (click the **Security** toolbar button). Under the category **Certificates**, you'll find links that show you your certificates, other's certificates, site certificates, and the authorities that issue certificates.

Site certificates identify others on the Internet to you. They are issued to organizations running servers.

If you are a server administrator and want to obtain a signed certificate, you need to submit a certificate request to a certificate authority. To operate using security features, a SSL server requires a digitally signed certificate. Without a certificate, the server can only operate without security capabilities. The process to obtain a site certificate is explained in Netscape's server documentation.

Netscape Communications Corporation does not issue certificates. Certificates are issued by a certificate authority, a third-party organization. Information about certificate classifications and associated service fees can be obtained directly from the certificate authority.

Identifying Security Indicators

Encryption and certification capabilities are built into Communicator and many types of servers including web page servers, mail servers, and discussion group servers. Communicator uses information windows, graphical elements, and dialog boxes to inform you when you are interacting with server sites and messaging applications that offer encryption and certification capabilities.

Security information can be found in both the **Security Info** and **Page Info** pages.

- You can view the general security qualifications of a page and access dialogs for using Communicator's encryption and certificate features by opening the **Security Info** page. To display this page, click the **Security** toolbar button or choose **Security Info** from the **Communicator** menu.
- You can view more detailed encryption and certification qualifications of a page and its components by opening the **Page Info** page. To display this page, choose **Page Info** from the **View** menu.

To interact with the Security Info page

1. Click the **Security** button on the navigation toolbar. Alternatively, you can click the padlock icon in the bottom-left corner of a window or choose the **Communicator** menu's **Security Info** item.
2. Click a category in the contents frame. The categories include security (status) information, personal and site certificates, current applications, passwords, and cryptographic modules.
3. Use the fields and buttons on the right to interact with the available security features.
4. Click the Help button in each display for particular information about the category.

To interact with the Page Info page

1. Choose the **View** menu's **Page Info** item. A hierarchy of the page's URL and any component URLs is displayed in the upper frame.
2. Click any URL in the upper frame to display the respective page information in the lower frame. The information presented in the lower frame includes encryption and certificate information specific to the URL.

To determine whether security features are in use

- In the **Security** toolbar button and the bottom-left corner of each window, a closed padlock icon indicates an encrypted page; an open padlock icon indicates an unencrypted page. Click the padlock icon to display the **Security Info** page.
- In mail windows, the **Security** toolbar button and the bottom-left corner of each window also contains a "signed" icon that indicates if a message is signed. A signed message displays the icon and the word "signed" in the right side of the message's address heading. Click any of these icons to display the **Security Info** page containing certificate information.
- A URL that begins with **https://** (instead of **http://**) indicates that a page comes from a server with encryption features. Similarly, a discussion group URL that begins with **snews:** (instead of **news:**) indicates that a page comes from a discussion group server with encryption features.
- Dialog boxes alert you to changes in security status among the pages you bring to screen. You can choose to bypass security dialogs by setting an option in the **Security Info** page.
- You can examine the security qualifications of a page and its components in more detail by choosing the **View** menu's **Page Info** item. The resulting display tells you about the page's encryption and certification.

To connect to an HTTP server that offers security

Insert the letter **s** so that the URL begins with **https://**. A URL beginning with **https://** shows that the page came from a server using encryption. Use **http://** otherwise. Choose the **View** menu's **Page Info** item for security details.

Similarly, a discussion group URL that starts with **snews:** (instead of **news:**) shows that the page comes from a discussion group server using encryption (again, insert the letter **s** if your discussion group server offers security). Use two slashes (//) after the colon (:) for discussion group servers other than the default one.

To identify mixed security pages

An encrypted page can only contain inline information from sources offering encryption. In a page of mixed security status, the unencrypted information is replaced by a mixed security icon. If you bring a mixed security page to your screen, you'll see a notification dialog box.

If a form appears on an encrypted page that has an unencrypted submission process, a notification dialog appears. The warning states that although the page is encrypted, the submission you are about to make is unencrypted and could be compromised by someone else. If you are sending passwords, credit card numbers, or other information you would like to keep private, you might want to cancel the submission.

If an unencrypted page contains encrypted information (either inline or as part of a form), no special action is taken. The page is considered unencrypted. This includes unencrypted forms that have encrypted submission processes.

To identify notification dialog boxes

Several notification dialog boxes inform you about the security status of pages. You can choose whether or not to receive these dialogs by setting the options in the **Security Info** page. Alternatively, you can deselect a dialog's **Show this Alert Next Time** box.

You are notified in the following situations:

- When requesting to view an encrypted page, you are told that the page is encrypted when transferred to you, and any information you send back is also encrypted.
- When requesting to view an unencrypted page after viewing an encrypted page, you are told that the unencrypted page could be observed by someone else when transferred to you, and any information you send back could also be read by someone else.
- When viewing a page with a mix of encrypted and unencrypted information, you are told that the encrypted page you just loaded contained some unencrypted information that will not be shown.
- When you submit a form using any unencrypted submission process, you are told that the submission process you are about to use is unencrypted. This means that the information you are sending could be compromised by someone else.
- You are always notified if the page was expected to be an encrypted page but is actually an unencrypted page (the page location has been redirected to an unencrypted page). This means that someone else could

observe the page you are about to display.

About Public Key Technology

The public key technology working within Communicator and Netscape servers is often described with unfamiliar security terminology. The following explanation of how public keys work may be an interesting supplement to your knowledge of Internet security.

A computer's security key is a file. You don't open a key (file) as you open a document or a word processor application. Keys are more like magnetic badges with powerful encryption and decryption capabilities.

There are two kinds of keys, private and public, and you need both. A private key sits on your computer and you never give it out. A public key can be copied repeatedly and given out to everybody.

You need both kinds of keys because they are fundamentally linked. (As with a pair of pants, you always buy both legs.) You can pass your public key around to whomever you wish, but for any key to perform its decryption duty, it needs to be matched back to its linked key partner.

Both public and private keys have the ability to encrypt and (together as a set) decrypt information. Keys work in two primary ways:

- Other users can encrypt information with your public key (the key you've distributed freely) and send the information to you. You can then use your private key to decrypt their information. The sender wants to know that the message can be read only by you (encrypted for privacy) and has not been altered.
- You can encrypt information with your private key and send the information over the network. Anyone on the network who has your public key (the key you've distributed freely) can decrypt your message. The recipient wants to know that the message came only from you (authenticated with your digital signature) and has not been altered.

In summary, your public and private keys (files) are linked by a powerful cryptographic algorithm that could only be decoded by major computer resources. No one else's keys can decipher messages to you that are encrypted with your public key. And no one else can pose as you, because their keys cannot send messages encrypted with your private key.

About Netscape's Security Technology

The Internet security technology developed by Netscape Communications to ensure private and authenticated communications (called SSL, short for Secure Sockets Layer protocol) is an open platform put into the public domain for the Internet community. Netscape Communicator and Netscape's SSL servers offer this nonproprietary technology.

The security features built into Netscape Communicator and SSL servers help protect your Internet communications with:

- Server authentication (thwarting impostors)
- Privacy using encryption (thwarting eavesdroppers)
- Data integrity (thwarting vandals)

Without thorough encryption capabilities, information transmitted over the Internet is more susceptible to fraud and other misuse by intermediaries. Information traveling between your computer and a server uses a routing process that can extend over many computer systems. Any one of these computer systems represents an intermediary with the potential to access the flow of information between your computer and a trusted server. Encryption makes it more difficult for intermediaries to deceive you, eavesdrop on you, copy from you, or damage your communications. The Internet does not provide built-in encryption capabilities.

The SSL protocol delivers server authentication, data encryption, and message integrity. SSL is layered beneath application protocols such as HTTP, SMTP, Telnet, FTP, Gopher, and NNTP, and layered above the connection protocol TCP/IP. This strategy allows SSL to operate independently of the Internet application protocols.

The SSL protocol works as an adjunct to other protocols without limiting access capabilities. You can use Netscape Communicator to display either encrypted or unencrypted pages. Online forms can be encrypted if the submit action is an **https://** URL to a SSL server.

You can save an encrypted page (though encrypted pages are not cached to disk across sessions). You can also view the HTML source of an encrypted page. Encryption affects the transmission of a page without affecting your ability to manipulate the page.

The Degree of SSL Security Protection

SSL uses authentication and encryption technology developed by RSA Data Security Inc. For example, Netscape Communicator's export implementation of SSL (U.S. government approved) uses a medium-grade, 40-bit key size for the RC4 stream encryption algorithm. The encryption established between you and a server remains valid over multiple connections, yet the effort expended to defeat the encryption of one message cannot be simply leveraged to defeat the next message.

A message encrypted with 40-bit RC4 takes on average 64 MIPS-years to break (a 64-MIPS computer needs a year of dedicated processor time to break the message's encryption). The high-grade, 128-bit U.S. domestic version provides protection exponentially more vast. The effort required to break any given exchange of information is a formidable deterrent. Server authentication uses RSA public key cryptography in conjunction with ISO X.509 digital certificates.

Netscape Communicator and SSL servers deliver server authentication using signed digital certificates issued by trusted third parties known as certificate authorities. A digital certificate verifies the connection between a server's public key and the server's identification (just as a driver's license verifies the connection between your photograph and your personal identification. Cryptographic checks, using digital signatures, help you trust the information within a certificate.

About FTP

By accessing a page whose URL begins with **ftp** (short for file transport protocol), you can navigate folders/directories, view files (including HTML and image files), download software, and upload software. For example, you might use links to FTP server sites for downloading updates to Communicator and helper application software.

Communicator lets you access FTP servers in the same way you access World Wide Web (HTTP) servers. However, you may find the FTP directory and content pages have minimal formatting. When possible, Communicator shows the type, size, date, and a short description of each file in a directory. A directory is presented as a list of links, each link often preceded by a small icon indicating another directory or a file. Clicking a directory link displays a subdirectory. Typically, at the top of a subdirectory is a link that displays the parent directory.

Clicking a binary file or program automatically downloads the software to a folder on your computer. (On the Mac OS and Unix, this folder can be designated in the **Applications** panel). After downloading, Communicator automatically looks for a suitable helper application to launch the file. If the necessary helper application is not available, a dialog box asks whether you want to save or discard the downloaded software.

Note that not all files are downloaded using FTP. By using the pop-up menu or by clicking a link with the Shift key held down (Option key on the Mac OS), you produce the dialog box for saving an HTTP page, an image file, or other file type to disk.

After you have accessed an FTP server, you can upload files to the site by dragging and dropping files from the desktop to Navigator. Alternatively, after you've accessed an FTP site, choose the **File** menu's **Upload File** item. In the resulting dialog box, select the file on your hard disk that you wish to upload. Note that you need "write" privileges to the FTP server (permission granted from the site) to upload files.

About Helper Applications and MIME Types

Helper applications expand Communicator's ability to interpret and display different kinds of computer files. Communicator has the built-in capability to read HTML-formatted pages, including GIF, JPEG, and XBM graphic file formats. With helper applications, this capability extends to each file format recognized by each helper application.

To keep track of the file formats requiring helper applications, Communicator maintains a mapping between file formats and helper applications. When Communicator retrieves a file with a format that Communicator itself cannot read, the application looks at the mapping to find the appropriate application capable of handling the file format.

To install and configure helper applications (many are already configured), open the **Edit** menu, choose **Preferences**, then select the **Applications** panel, which is in the **Advanced** category. When you click **New Type** or **Edit**, a dialog appears that lets you add or modify information such as file extensions or actions associated with a helper application or plug-in.

Kinds of Helper Applications

You can find helper applications that let you automatically decompress downloaded applications, listen to sounds, play movies, and get a better display of images. Most can be obtained free or as shareware.

Here's a sampling of software categories that use file formats requiring helper applications:

- Compression: You might find that some programs are stored on the Internet in formats your computer doesn't understand. You'll want to locate a helper application program like PKUNZIP (Windows) or Stuffit Expander (Mac OS) to translate and decompress downloaded software (and other helper applications).
- Sounds: Most sound files aren't in a format that your computer can automatically play. To listen to the different types of sound files such as ULAW (common **.au** files), AIFF, and WAV, you'll need to install a helper application that understands them.
- Pictures and movies: Communicator can display GIF, JPEG, and XBM files internally, but you might prefer to use a dedicated image viewer. To have Communicator automatically launch an external viewer, select the file type in the list, then choose the application capable of handling the type. You'll need a movie player to view **mpeg** movies.

MIME Types

MIME (Multipurpose Internet Mail Extensions) is a standardized method for organizing divergent file formats. The method organizes file formats according to the file's MIME type.

When Communicator retrieves a file from a server, the server provides the MIME type of the file. For example, HTTP servers use HTML formatting.

Communicator uses the MIME type to establish whether the file format can be read by the software's built-in capabilities or, if not, whether a suitable helper application is available to read the file.

For servers that do not provide a MIME type with a file, Communicator interprets the file's extension (a suffix appended to a filename). For example, the **.html** extension in the filename **index.html** suggests a file in the HTML format. Likewise, a **.zip** extension suggests a compressed file, an **.rtf** extension suggests a file in Rich Text Format, and so on. You can view and configure the mapping of all MIME types to helper applications by using the **Applications** panel.

The MIME protocol is used in Internet communications to transmit documents of varying formats. The protocol handles complexities by establishing a relationship (a mapping) between the format of a document's content and the format of the document's computer representation.

Applications using MIME can establish the type of software necessary to interpret the content of a transmitted document. With the proper helper application software and **Applicati ns** panel mappings, Communicator can

automatically initiate the necessary actions to provide you access to content transmitted in numerous formats.

Unix Types and Mailcap Files

On Unix, the mapping of MIME types uses two kinds of files: a Types file and a Mailcap file. Each can be configured with global, default, and personal files.

A Types file maps a file format (on the left) with an identifying filename suffix (on the right). Here's a sample from a **.mime.types** file:

application/dvi dvi

image/jpeg jpeg

audio/basic au, wav

A Mailcap file maps a file format (on the left) with a software application capable of interpreting the format (on the right). Here's a sample from a **.mailcap** file:

application/dvi; dvi-app-name %s

image/*; xv %s

audio/basic; audiotool %s

As an example, an audio file **mySound.au** plays using the **audiotool** application.

Accessing the Internet

Some companies maintain a network that is linked to the Internet via dedicated communication lines. Those with less substantial resources, including most individuals, access the Internet through an Internet Service Provider, a company that offers use of its dedicated communication lines.

If you have a modem, you can dial up a service provider whose computers will connect you to the Internet, typically for a fee. Dial-up access means that the modem on your computer can log in to another computer that is hooked up to the Internet.

The most popular dial-up access alternatives are shell accounts and SLIP/PPP accounts. When using a shell account, you dial into a service provider's computer and use the Unix operating system to indirectly connect to the Internet. With an indirect connection, your computer does not interact with Internet computers. In many cases, when you download a file from an Internet site, the file is saved on the service provider's computer rather than on your computer. You then have to transfer the file from the service provider's computer to your home system. Shell accounts, while limited in features, have historically been less expensive than direct access accounts.

When using a SLIP or PPP account, you dial into a service provider's computer and run applications that directly connect to the Internet. With a direct connection, your computer can use browsers with user-friendly graphical interfaces to interact with Internet computers. A direct connection lets you download files directly to your system from remote sites. SLIP or PPP access to the Internet offers more performance and convenience than a shell account.

About SLIP and PPP

SLIP, short for Serial Line Internet Protocol, and PPP, short for Point-to-Point Protocol, are Internet standards for transmitting Internet Protocol (IP) packets over serial lines (phone lines). Internet information is packaged into IP

packets, a method for enclosing data into small, transmittable units (wrapped up on one end, unbundled on the other).

An Internet Service Provider might offer SLIP, PPP, or both. Your computer needs to use connection software (usually provided by the service provider) that matches the protocol of the server's connection software. PPP is a more recent and robust protocol than SLIP.

CSLIP

CSLIP, Compressed Serial Line Internet Protocol, is a version of SLIP that supports compression.

Dynamic SLIP and Static SLIP

When you use a SLIP or PPP connection to the Internet, your service provider's server identifies your computer by providing you with an IP address (a number like 192.34.32.81). Using dynamic SLIP, your computer is dynamically allocated a temporary IP address (just for the immediate session) from a set of IP addresses maintained by the server. Using static SLIP, your computer is allocated a one-time, permanent IP address (when your account is set up) for use across sessions. Static SLIP means you have a static IP address.

About TCP/IP and Winsocks

TCP/IP

Short for Transmission Control Protocol/Internet Protocol, this is the standard communications protocol required for Internet computers. To communicate using TCP/IP, A PC needs a set of software components called a TCP/IP stack (a stack is built into Windows 95). The Mac OS typically uses proprietary software called MacTCP. Most Unix systems are built with TCP/IP capabilities.

TCP/IP Stack

Only the PC platform requires a TCP/IP stack. To make a successful connection to the Internet, your PC needs application software such as Communicator plus a TCP/IP stack consisting of TCP/IP software, sockets software (Winsock.DLL), and hardware driver software (packet drivers). Several popular TCP/IP stacks are available for Windows, including shareware stacks.

Winsocks

This stands for Windows Sockets. Winsocks is a set of specifications or standards for programmers creating TCP/IP applications (communicating applications such as Communicator) for Windows.

About Firewalls

A firewall protects one or more computers with Internet connections from access by external computers connected to the Internet. A firewall is a network configuration, usually created by hardware and software, that forms a boundary between networked computers within the firewall from those outside the firewall. The computers within the firewall are a subnet with internal access capabilities and shared resources not available to the computers on the outside.

Often, a single machine atop the firewall is allowed access to both internal and external computers. Since the computer atop the firewall is directly interacting with the Internet, strict security measures against unwanted access from external computers are required.

A firewall is commonly used to protect information such as a network's mail and data files within a physical building

or organization site. A firewall reduces the risk of intrusion by unauthorized people from the Internet; however, the same security measures can limit or require special software for those inside the firewall who wish to access information on the outside. A firewall can be configured using proxies (or SOCKS) to designate access to information from each side of the firewall.

About Proxies and SOCKS

Proxy or proxy server

A proxy is a special server that typically runs in conjunction with firewall software and allows access to the Internet from within a firewall. The proxy server waits for a request from inside the firewall, forwards the request to the remote server outside the firewall, reads the response, then sends the response back to the client. Communicator lets you set the name and port number of proxy servers in the **Proxies** preference panel in order to resolve requests for access to Internet resources. Protocols such as HTTP, FTP, Gopher, WAIS, and Security can have designated proxies. Proxies are generally preferred over SOCKS for their ability to perform caching, high-level logging, and access control.

SOCKS

SOCKS is software that allows computers inside a firewall to gain access to the Internet. SOCKS is usually installed on a server positioned either inside or on the firewall. Computers within the firewall access the SOCKS server as clients to reach the Internet. Communicator lets you set the name and port number of the SOCKS host (server) in the **Proxies** panel. On Windows, the host is specified in the registry (32-bit) or .ini file (16-bit).

Sometimes you need to restart Communicator after changing the SOCKS host. Communicator supports version 4 of SOCKS, defined by the socks.cstc.4.1 implementation.

About Gopher

Some information on the Internet is offered through Gopher servers. When you want information that happens to be on a Gopher server, you'll click a link whose URL begins with **gopher** (or enter the URL in the location field).

Communicator lets you access Gopher servers in the same way you access World Wide Web (HTTP) pages. Though Gopher pages lack rich formatting, menu listings allow you to display content pages or additional menu sublistings.

A menu is presented as a list of links, each link preceded by a small icon indicating the type of resource the link displays. For example, Gopher links can bring you

- menus
- text files
- images
- indexes
- movie and binary files

Gopher indexes use form pages that let you find information on Gopher servers. An index page typically provides an editable field for you to enter a search string and a button for you to submit the form to the Gopher server. The search results are a Gopher menu listing items that match your search criteria.

Some files, such as short digital movies, require the use of Communicator's helper applications. If available, Communicator automatically launches the helper application required by a Gopher link.

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